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Shocks, Shorts and Sparks—Strict Liability for Electric Utilities

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SHOCKS, SHORTS AND SPARKS—STRICT LIABILITY FOR ELECTRIC UTILITIES?

I. Introduction

The National Safety Council divides deaths due to electrical accidents into four broad categories: (a) home wiring and appliances; (b) industrial wiring and appliances; (c) other and unspecified current; and (d) generating plants, distribution stations and transmission lines. In addition to deaths, thousands of incidents of personal injury and property damage are attributable to shocks, shorts, sparks and fires. Because of the omnipresence of electricity and its transmission equipment, the factual permutations where injury and damage occur also number in the thousands. One way electric accidents occur is when people come into contact with utility lines strung over their private property, such as when a ladder, antenna or person on a roof touches an uninsulated, current carrying wire. Another set of facts involves contact with lines strung over other property—a helicopter colliding with transmission lines, a child’s model airplane coming into contact with power lines or a person touching a downed power line. Next, accidents occur in which the electricity itself is the culprit, arcing through defective equipment onto a consumer’s property or into a consumer’s home in an unexpected and dangerous way.

Many of these electricity-caused or electricity-related accidents result in litigation. Does this ever-increasing panoply of electrical accidents causing property damage and personal injury require reexamination of the basis for liability in these cases? This Comment examines whether, in California, strict liability should be applied in cases involving utility companies for damages resulting from either defective electricity or manufacturing or design defects of the transmission system. If strict liability can be applied to electrical utilities, to what

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2. In this Comment the terms strict liability and products liability are used interchangeably to describe a doctrine of plaintiff recovery which holds the manufacturer, and all participants in the chain of distribution, liable for defective products in the absence of fault. In California, the liability analysis involves finding an injury caused by a “defect” in design or manufacture and that the injury occurs through the use of the product in a reasonable and foreseeable manner. Jurisdictions outside California may differentiate the two terms. See L. FRUMER & M. FRIEDMAN, 2 PRODUCTS LIABILITY § 3.03 (1986).
extent and under what factual circumstances may a court impose liability?

A California Court of Appeal in the Third District recently held in Pierce v. Pacific Gas & Electric Co.\(^3\) that electricity furnished to the plaintiff was a consumable “product” rather than a service\(^4\) and that the electricity was in the “stream of commerce.”\(^5\) The court then held that since the product was within the ambit of California’s strict liability law,\(^6\) the utility company which commercially supplied the electricity was subject to strict liability in tort for personal injuries caused by the defective electricity.

Just two months earlier, a second district court of appeal had decided in United Pacific Insurance Co. v. Southern California Edison Co.\(^7\) that strict liability did not apply to high voltage transmission facilities owned, used and operated by a privately owned electric utility. That court ruled that such facilities and the electricity supplied were neither placed in the “stream of commerce” nor was the electricity a “product” delivered to consumers.\(^8\)

This Comment examines whether these two cases can be reconciled under the parameters of California’s tort law to represent a consistent view of strict liability for electricity-related personal injuries. The two cases are examined in the context of utility companies’ historical liability for personal injuries and property damage and the development of strict liability in California. The issues addressed by this inquiry include: Is electricity a product?; what is defective electricity?; when does electricity enter the “stream of commerce”?; and can strict liability or a modified concept of enterprise liability\(^9\) attach to the transmission facilities? As a

4. Id. at 82-83, 212 Cal. Rptr. at 291-92. The determination that electricity is a product was crucial to the court’s decision. It was the first time a California court ruled that electricity was a consumable product. See generally infra notes 97-107 and accompanying text.
5. Pierce, 166 Cal. App. 3d at 84, 212 Cal. Rptr. at 292.
6. Id. at 82-84, 212 Cal. Rptr. at 291-92. The court identified a manufactured item (electricity), placed in the market (passing through the plaintiff’s meter and into her home), that had a defect (abnormally high voltage) and was to be used without inspection by the consumer (Ms. Pierce). The court next identified the public policy justifications for applying strict liability as including: providing a short cut to liability where negligence may be present but is difficult to prove; providing an economic incentive to improve product safety; inducing the reallocation of resources toward safer products; and spreading the risk of loss among all who use the product. See infra notes 10-18.
8. Id. at 707-09, 209 Cal. Rptr. at 822-24.
9. Enterprise liability describes a system of liability not confined to “products” or “fault.” It encompasses a broadened concept of liability for all harms associated with an activity by an “enterprise” upon proof of injury to the plaintiff. The “enterprise” will almost al-
corollary question, the inquiry asks whether sales of all services as opposed to sales of only products can be governed by strict liability. If not, why not? If only certain services, why those and not others?

The reader must be willing to step back and reexamine the doctrine of strict liability and its underlying economic and policy justifications in order to determine whether such policies may be applied to public and private utility companies that provide electricity.

II. RECENT CASE LAW

In Pierce v. Pacific Gas & Electric Co., during a lightning storm in the Meridian area of Sutter County, California, lightning struck and damaged two power transformers on Gail Pierce's property. Her house lost its electricity and she called a Pacific Gas & Electric (PG&E) repair crew. The PG&E crew replaced the two transformers; however, the second transformer exploded while it was being connected and sent 7000 volts of electricity into Ms. Pierce's home. The resulting electrical surge ruptured a propane gas pipe and started a fire at the rupture point in a storage shed. As Ms. Pierce reached for the gas tank's shutoff valve she received a terrible shock which tightened her hand to the valve and pulled her body on the metal tank. The surge of electricity had charged the house's wiring. After about twenty seconds, Ms. Pierce was thrown off the tank and down an embankment. She was severely injured.

The appellate court ruled that "the distribution might well be a commercial manufacturer, lessor, bailor, retailer or wholesaler. See generally Comment, Continuing the Common Law Response to the New Industrial State: The Extension of Enterprise Liability to Consumer Services, 22 UCLA L. REV. 401 (1974).

This definition of enterprise liability differs from the enterprise liability applied in cases involving asbestos and drugs such as DES where the product is harmful and the plaintiff cannot prove which manufacturer supplied her or him with the product. That type of liability is also known as "market share" liability. See generally Sindell v. Abbott Laboratories, 26 Cal. 3d 588, 607 P.2d 924, 163 Cal. Rptr. 132 (1980).

service, but the electricity itself, in the contemplation of the ordinary user is a consumable product.'"

15 As a product, the court considered the electricity to be within California's strict products liability law. The court then discussed the policies underlying the development of strict liability, finding that these policies would be furthered by applying the doctrine here. Finally, the court limited its holding to cases where the electricity is actually in the "stream of commerce" and expected by the

\[\text{Id. at 78, 212 Cal. Rptr. at 288.}\]

Evidence at trial established that the defective transformer was manufactured by Federal Pacific Electric Company, and that PG&E had never placed the transformer on the market or in the "stream of commerce." PG&E could not be strictly liable for a defect in the transformer since they were a consumer of the transformer. \[\text{Id. at 76, 212 Cal. Rptr. at 286-87.}\]

At trial the jury only considered a negligence cause of action. The court had granted PG&E's motion for nonsuit on the issues of strict products liability, ultrahazardous activity and breach of implied warranty for particular purpose. The jury found by special verdict that PG&E was not negligent. \[\text{Id. at 75, 212 Cal. Rptr. at 286.}\]

15. \[\text{Id. at 82, 212 Cal. Rptr. at 291 (quoting Ransome v. Wisconsin Elec. Power Co., 87 Wis. 2d 605, 275 N.W.2d 641 (1979)).}\] The facts in \textit{Ransome} were similar to those in \textit{Pierce}. A storm and subsequent transformer failure started a fire in a home after approximately 1000-4000 volts of electricity were transmitted into the house. The court ruled that because the electricity was defective when it left the electric utility's possession, strict liability was applicable. The utility unsuccessfully argued that the accident was caused by an act of God, but the court ruled that lightning was a foreseeable and recurring event, negating the utility's defense.

The court in \textit{Pierce} discussed a hypothetical act of God by stating:

\[\text{Where lightning strikes a powerline and enters a consumer's home, causing damage, the utility is not strictly liable because it has not marketed a "product" at all—in such cases the utility has provided only a connecting medium through which a force of nature enters the consumer's home and causes injury.}\]

\[\text{Id. at 84 n.10, 212 Cal. Rptr. at 292 n.10.}\]

Defendant vigorously contested plaintiff's assertion that electricity was a product:

"What is electricity? Simply stated, it is a force, like the wind, with the potential to do work. Electricity alone cannot perform work. Electricity alone is useless from a consumer's point of view. Electricity is a stream of electrons that is created, transmitted, distributed, and converted to energy, all within milliseconds. \textit{No California court has ever held that electricity is a product.}\"

\[\text{Id. at 79 n.3, 212 Cal. Rptr. at 288 n.3 (quoting PG&E's trial brief and motion for nonsuit) (emphasis in original).}\]

16. \textit{Pierce}, 166 Cal. App. 3d at 83, 212 Cal. Rptr. at 291-92. The court held that the electrical power system presented a huge, complex and highly technical operation beyond the ability of the injured plaintiff to successfully investigate and beyond the knowledge of the average juror. The utility itself was in a better position to diagnose—and ultimately to correct—transmission failures. \[\text{Id. at 83, 212 Cal. Rptr. at 291.}\] The court also held that evidence at trial showed that the accident could have been avoided through proper testing of the exploding transformer. \[\text{Id. at 82, 212 Cal. Rptr. at 291.}\] By applying strict liability, the court provided incentive to the utility to engage in that proper testing. The court also recognized that while strict safety regulations are maintained by the Public Utilities Commission (a state agency charged with regulating all public and private utilities, \textit{see Cal. Pub. Util. Code §§ 301-320 (West 1975 & Supp. 1986)}, nothing in the record indicated that the procedures were incapable of being made safer. \[\text{Id. at 83, 212 Cal. Rptr. at 292.}\] The court concluded that applying strict
consumer to be at marketable voltage.\textsuperscript{17} In most cases, it said, this would be at the point where the electricity is metered onto the premises. However, the court refused to draw a “bright line” at a particular point, finding that the many variations of metering systems prevented the drawing of such definite lines.\textsuperscript{18}

In \textit{United Pacific Insurance Co. v. Southern California Edison Co.},\textsuperscript{19} plaintiffs brought actions against an electrical utility for damages resulting from a fire. In \textit{United Pacific}, a kite had become entangled between two electrical conductors and a telephone cable and pulled the three wires close enough together to cause an arcing of current.\textsuperscript{20} The current melted the conductors, causing an emission of molten aluminum which dropped and ignited some brush and grass below. A fire started, eventually destroying over 200 homes.\textsuperscript{21}

The plaintiffs argued that the placement of the conductors and the positioning of the transmission lines was of defective design and therefore, strict liability principles should apply.\textsuperscript{22} They urged that the court apply strict liability to this factual situation because the policy reasons

liability helped spread the costs of injury among the millions of users of electricity instead of imposing the costs on the injured victim. \textit{Id. See infra} notes 90-93 and accompanying text.

The court’s policy discussion mirrored plaintiff’s memorandum of points and authorities language:

As a commercial supplier of a product dangerous unless safeguarded, all of the usual policy arguments dictate that defendant be held strictly liable in tort and should now bear plaintiff’s burden of loss because her injuries were caused by a defect in either the power supplied, the equipment used by defendant to supply the electricity, or both.

\textit{Pierce}, 166 Cal. App. 3d at 79 n.4, 212 Cal. Rptr. at 288 n.4.

Defendant argued that the plaintiff merely alleged defective electricity as a way of reaching the defective transformer. “‘Now they’re talking about electricity, which is simply a way to backdoor the transformer in.’” \textit{Id. at} 80 n.5, 212 Cal. Rptr. at 289 n.5. \textit{See supra} notes 106-07 and accompanying text discussing the court’s reasoning in finding for plaintiff on this issue.

17. \textit{Pierce}, 166 Cal. App. 3d at 84, 212 Cal. Rptr. at 292.
18. \textit{Id.}
20. \textit{Id. at} 705, 209 Cal. Rptr. at 821. Plaintiffs were homeowners and insurance companies subrogated to the rights of other homeowners. Defendants included the General Telephone Co. of California, Santa Barbara Cable Television Co. and Southern California Edison. \textit{Id. at} 703, 704, 209 Cal. Rptr. at 819-20.
21. \textit{Id. at} 704-05, 209 Cal. Rptr. at 821.
22. \textit{Id. at} 706-07, 209 Cal. Rptr. at 821-22. Plaintiffs produced expert evidence that an alternative configuration of the conductors and powerlines would have prevented the arcing of electricity. The cost of the construction would not have been more than the actual configuration used; in fact, the alternate configuration was shown in the Edison manual. \textit{Id. at} 706, 209 Cal. Rptr. at 821. The plaintiffs argued that the “defect in the Edison facilities is that the combination of closeness of conductors and sag between poles permitted arcing that reasonably could have been avoided.” \textit{Id.}
for the doctrine would be served. The court, however, ruled that the electricity traveling through the lines was not yet in a marketable form, and thus was not a "product." The court also held that the cable used to transmit the voltage was not a package for the power that could be considered defective. The court reasoned that high voltage transmission facilities are not placed in the stream of commerce as such, but remain in the control of the utility. Finally, the court concluded that the "service" of electricity was not meant to be included under the aegis of strict liability.

While the court in Pierce held that the electricity in question was a product, the court in United Pacific ruled that the high voltage electric transmission facilities alleged as defective by the plaintiff were not products. In Pierce, the court ruled that the electricity had entered the stream of commerce by passing through the plaintiff's metering system. In United Pacific, the court found that the facilities could not have entered the stream of commerce because they were owned and controlled by the utility at the place where the accident occurred. Finally, whereas the court in Pierce found strict liability principles best served by holding electricity to be a product, the court in United Pacific found that a negligence

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23. See infra notes 90-97 and accompanying text.
26. United Pacific, 163 Cal. App. 3d at 707-08, 209 Cal. Rptr. at 822-23. Plaintiffs argued that Edison had placed the entire transmission system in the stream of commerce by using it to transmit the electricity. Had Edison leased, licensed or sold its design pattern on the system, plaintiffs argued, strict liability could apply. Thus it was irrational not to apply it here. The court reminded the plaintiffs that none of those things occurred. The concept of marketing—which necessarily involved the transfer of property rights—was not present. If there was no marketing, the court concluded, there could be no placing of the product into the stream of commerce. Id. at 708, 209 Cal. Rptr. at 823. See infra notes 154-69 and accompanying text for further discussion on expanding the "stream of commerce" concept.
27. United Pacific, 163 Cal. App. 3d at 708-10, 209 Cal. Rptr. at 823-24. The court considered the economic and public policies underlying strict liability—cost spreading and risk distribution—as well as strict liability's evidentiary impact. The court concluded these goals would not be met. First, Southern California Edison, the utility company supplying the electricity and maintaining the utility lines, could not raise rates without prior Public Utilities Commission (PUC) approval. Thus, the utility could not necessarily pass on the burden to its customers. Second, since utilities are so highly regulated, there was little incentive, beyond the already high standard of safety required by PUC regulation, to make the system even safer. Finally, the United Pacific court found that the plaintiffs were not prohibited from discovering the facts necessary to prove their case. The knowledge of plaintiffs' expert witness and the fact that the power lines were in open view led the court to believe that the plaintiffs had no great difficulty in bringing the action as a common negligence action. Id. at 708-09, 209 Cal. Rptr. at 823-24.
cause of action was sufficient to provide plaintiffs with a remedy as well as to maintain an incentive for safe delivery of electricity.\textsuperscript{28}

In reconciling these two cases, the determinative issue is when and where the electricity (and the attendant equipment) becomes a "product within the stream of commerce." If the electricity contains a defect before the point of transformation it will not be termed a "product." The point of transformation is where the "product" enters into the "stream of commerce."\textsuperscript{29} While \textit{Pierce} held that the point of transformation was the meter outside a residence, that was not to be a hard and fast rule.\textsuperscript{30} \textit{United Pacific}, while not answering that exact question, seemed to agree. The court there found that electricity could not be considered a product within the stream of commerce until it was delivered to the consumer.\textsuperscript{31} Although these two cases are factually distinguishable,\textsuperscript{32} and thus legally reconcilable, they may not be consistent with the doctrinal policy bases of California's strict liability law.

\section*{III. History of Electric Utility Liability in California}

Historically, electric utility liability in California has been governed by a negligence standard. However, courts have often required a higher duty of care on suppliers of electricity. The courts considered electricity as special, requiring the use of "very great care,"\textsuperscript{33} or they saw electricity as a "dangerous quantity of electric fluid"\textsuperscript{34} carried by "deadly wires."\textsuperscript{35}

\begin{itemize}
  \item \textsuperscript{28} See supra notes 10-27 and accompanying text.
  \item \textsuperscript{29} See \textit{Pierce}, 166 Cal. App. 3d at 84, 212 Cal. Rptr. at 292; \textit{United Pacific}, 163 Cal. App. 3d at 707, 209 Cal. Rptr. at 822-23.
  \item \textsuperscript{30} \textit{Pierce}, 166 Cal. App. 3d at 84, 212 Cal. Rptr. at 292.
  \item \textsuperscript{31} \textit{United Pacific}, 163 Cal. App. 3d at 707, 209 Cal. Rptr. at 822. "[Electricity] is not in a marketable state and the doctrine [strict liability] was not intended to apply in such cases." \textit{Id.} (quoting Genaust v. Illinois Power Co., 62 Ill. 2d 456, 343 N.E.2d 465 (1976)). "[U]ntil actually delivered, the electricity has not been placed in the 'stream of commerce.'" \textit{Id.} (quoting \textit{Petroski v. Northern Ind. Pub. Serv. Co.}, 171 Ind. App. 14, 354 N.E.2d 736 (1976)).
  \item \textsuperscript{32} The most important distinguishing fact is that in \textit{Pierce} the challenged defect manifested inside the plaintiff's home whereas in \textit{United Pacific} the alleged defect was not on plaintiff's property. See text accompanying supra notes 10-31 for a narrative of both cases.
  \item \textsuperscript{33} Giraudi v. Electric Improvement Co., 107 Cal. 120, 40 P. 108 (1895). In \textit{Giraudi}, the plaintiff, a dishwasher who was sent up to the roof of the hotel where he worked, was injured when he came in contact with an electric wire lying there. The court found that the "[d]efendant was using a dangerous force, and one not generally understood," which required the use of the heightened standard of care. \textit{Id.} at 124, 40 P. at 112.
  \item \textsuperscript{34} Dow v. Sunset Tel. & Tel. Co., 157 Cal. 182, 184, 106 P. 587, 589 (1910). In \textit{Dow}, the plaintiff was a repairman for the defendant. While on a call to repair a grounded wire, he touched a "live" wire which had sagged into the same area. \textit{Id.}
  \item \textsuperscript{35} Pennebaker v. San Joaquin Light & Power Co., 158 Cal. 579, 588, 112 P. 459, 463 (1910). The plaintiff recovered for the wrongful death of her husband firefighter who stepped on charged wires when the defendant negligently failed to turn off the current. \textit{Id.}
\end{itemize}
In *Polk v. City of Los Angeles*, the California Supreme Court held that determining the negligence of the utility company involved considering "the well known dangerous character of electricity and the inherent risk of injury to persons or property if it escapes . . . . Hence the care used must be commensurate with and proportionate to that danger."  

Although supplying electricity has never been held to be an ultrahazardous activity requiring a standard of care higher than the negligence standard, courts have taken special notice of electricity’s potential for harm. As long ago as 1913 a California appellate court, in discussing electricity, concluded that:

"It may be regarded as a solecism to say that one may own a thing not susceptible of definition and the nature and character of which is practically unknown, yet when one gathers from the elements an energy or force which he may store, transmit, and utilize, he thereby appropriates to his own use that thing, whatever it may be, and it is a subject of ownership, of barter and sale, so long as it is his possession.’’

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36. 26 Cal. 2d 519, 159 P.2d 931 (1945). In *Polk*, the city maintained power lines passing through branches and foliage of trees. Constant contact with the trees caused the insulation to wear off the wires. The plaintiff, a tree trimmer, was injured when his 12 foot pruning hook came in contact with the uninsulated wire. *Id.*

37. *Id.* at 525, 159 P.2d at 934.

38. Liability for ultrahazardous activities involves “absolute” liability for injuries or property damage caused by an ultrahazardous activity, such as rocket testing, explosives use or the use of poisonous gas. The duty is established when the defendant carries out the ultrahazardous activity, regardless of the fact that he uses utmost care to prevent harm. *Luthringer v. Moore*, 31 Cal. 2d 489, 190 P.2d 1 (1948). In *Luthringer*, the plaintiff entered his place of work after the defendant had released some poisonous gas for exterminating purposes. Plaintiff inhaled the fumes and was seriously injured. The court ruled that use of poisonous gas was an ultrahazardous activity which necessitated a heightened standard of liability. Other factors considered by the court included the location of the activity of defendant and whether the activity was one of common usage. *Id.* at 498, 190 P.2d at 8. An activity is a matter of common usage if it is customarily carried on by a great mass of mankind or by many people in a community. *Id.* The following cases contain illustrations of ultrahazardous activities: *Green v. General Petroleum Corp.*, 205 Cal. 328, 270 P. 952 (1928) (oil well operations); *Smith v. Lockheed Propulsion Co.*, 247 Cal. App. 2d 774, 56 Cal. Rptr. 128 (1967) (rocket testing program); *Balding v. D.B. Stutsman, Inc.*, 246 Cal. App. 2d 559, 54 Cal. Rptr. 717 (1966) (blasting); *Miles v. A. Arena & Co.*, 23 Cal. App. 2d 680, 73 P.2d 1260 (1937) (use of crop spray containing arsenic).

The plaintiff in *Pierce* argued that the maintenance of the high-voltage power system was an ultrahazardous activity. The court concluded that it was not. “[T]he doctrine scrutinizes not the accident itself but the activity which led up to the accident—in this case, the maintenance of high-voltage powerlines and transformers . . . . which has become pervasive and is now entirely commonplace.” *Pierce v. Pacific Gas & Elec. Co.*, 166 Cal. App. 3d 68, 85, 212 Cal. Rptr. 283, 293 (1985); see also *McKenzie v. Pacific Gas & Elec. Co.*, 200 Cal. App. 2d 731, 19 Cal. Rptr. 628 (1962).

After the development of products liability in California, one might have expected it to govern electric utilities. After all, courts had historically acknowledged electricity's "dangerous character." While dangerousness is not always a necessary precedent to the application of strict liability, a basic maxim in the development of the doctrine is preventing accidents.\(^4\) The high degree of care consistently imposed on electrical utilities evinces the same concern.\(^4^1\) Post-Greenman\(^4^3\) cases, however, have determined electric utility liability without mentioning strict liability.\(^4^5\) Electricity itself was never held to be a product until Pierce.\(^4^4\) No cases have, as yet, held that production or delivery of electricity should be governed by strict liability.

IV. History of Strict Liability in California

A. Cases

Although well documented, a brief discussion of the evolution of strict liability in California is necessary to understand its application to electricity and electrical utilities. Justice Traynor's\(^4^5\) famous statement in Greenman v. Yuba Power Products, Inc.,\(^4^6\) that "a manufacturer is strictly liable in tort when an article he places on the market, knowing

Terrance Water Co. v. San Antonio Light & Power Co., 1 Cal. App. 511, 82 P. 562 (1905) (plaintiff sued for the wrongful death of his father who was killed after receiving a jolt of electricity while trying to start a pump in the mine where he worked).

40. See generally Escola v. Coca-Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 440-41 (1944) (Traynor, J., concurring); see also infra notes 70-84 and accompanying text.


44. Pierce, 166 Cal. App. 3d 68, 82, 212 Cal. Rptr. 283, 291; see supra notes 10-18 and accompanying text. As an expanding doctrine whose purpose is to prevent accidents and ensure that costs of manufacturing and design defects are borne by the manufacturers, strict liability might have easily accommodated electrical "accidents." However, courts have since consistently termed the production, delivery and existence of electricity a "service" falling outside of the strict liability doctrine. Part of the explanation may be that because many electric liability cases were decided in an earlier scientific age when electricity was not commonly understood, courts had difficulty determining whether electricity had any inherent substantial qualities, except the abilities to do work and do harm. The historical terming of electricity as a service persisted with the help of stare decisis, notwithstanding technological advances which allow us now to see and measure the particles of electricity.

45. Justice Roger Traynor served on the Supreme Court of California as both an Associate and Chief Justice and wrote several of the products liability opinions quoted in this Comment.

that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being—has long been a definitive articulation of the strict liability equation. However, to fully understand strict liability concepts, it is important to recognize that this manifesto of strict liability grew from a long and impressive history of non-negligence based liability.

The analytical roots of strict liability evolved from two interrelated yet distinct concepts of protection: the protection of people from their neighbors' dangerous activities (generally relating to property damages); and the implied warranty in a sale of goods to a consumer (generally related to personal injury). The first line of protection began with *Fletcher v. Rylands*, where the court stated:

> We think that the true rule of law is, that the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape. He can excuse himself by showing that the escape was owing to the plaintiff's default; or perhaps that the escape was the consequence of vis major, or the act of God.

While this rule is not a statement of strict liability, it is a judicial realization that a higher degree of liability is necessary in some situations than the standard negligence theory. The only intervening factors that would dispell liability would be contributory negligence ("owing to the plaintiff's default"), or an act of God ("vis major"). Therefore, a different standard of care was set forth for such inherently dangerous activities. The plaintiff was not required to prove that the defendant acted in an unreasonable manner nor was there discussion of a reasonable person standard.

Incorporating the standard of *Fletcher v. Rylands*, the California

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47. *Id.* at 62, 377 P.2d at 900, 27 Cal. Rptr. at 700.
48. L.R. 3 H.L. 330 (1868), L.R. 1 Ex. 265 (1866), 3 H. & C. 774 (Ex. 1865). In *Rylands*, the defendant built a reservoir on his land over an old coal mine. The coal had been taken out of the mine some time earlier. A defect in the subsoil caused the water to leak out of the reservoir and flood the plaintiff's land. The defendant was held liable for the damage to the plaintiff's land, even though the damage was the result of a latent defect in the subsoil and was not a direct action by the defendant.
49. L.R. 1 Ex. at 279-80.
50. The reasonable person standard of common law negligence was not evident. By dropping this element from those necessary to prove liability, the court lightened the plaintiff's load. The test there was essentially the same as that for an ultrahazardous activity. *See supra* note 38.
Supreme Court, in *Green v. General Petroleum Corp.*,\(^{51}\) stated that when an injury is directly caused by a neighbor’s action on his own property “there is an absolute liability for the consequential damage, regardless of any element of negligence . . . that may have caused the injury.”\(^{52}\) Similarly, in *Spano v. Perini Corp.*,\(^{53}\) a New York case, a plaintiff sustained property damage resulting from defendant’s use of dynamite in a blasting operation. The court, in approving plaintiff’s strict liability claim, stated “one who engages in blasting must assume responsibility, and be liable without fault, for any injury he causes to neighboring property.”\(^{54}\)

The implied warranty root in the history of strict liability grew from imposing penalties for defective foodstuffs. Early English law held such high regard for “non-corrupt” food and drink that criminal statutes were enacted for violations.\(^{55}\) A buyer was entitled to rely on the safety of food sold in the marketplace. There was a distinction, however, between implied warranties between dealers (governed by general warranty rules) and those between a dealer and consumer (governed by the expanded doctrine of implied warranty).\(^{56}\) Limitations were imposed in the consumer-dealer relationship to ensure the equitable placement of liability. Implied warranties applied only when the sale was on the “open market”\(^{57}\) and for the “immediate use”\(^{58}\) by the consumer.

The New York Court of Appeals, in *Greco v. S.S. Kresge Co.*,\(^{59}\) stated “that accompanying all sales by a retail dealer of articles of food for immediate use there is an implied warranty that the same is fit for human consumption.”\(^{60}\) The following year, the California Supreme Court held in *Klein v. Duchess Sandwich Co.*\(^{61}\) that “in the absence of an express warranty of quality, a manufacturer of food products under modern conditions impliedly warrants his goods when dispensed in original packages, and that such warranty is available to all who may be dam-

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51. 205 Cal. 328, 270 P. 952 (1928).
52. Id. at 334, 270 P. at 955.
54. Id. at 15, 250 N.E.2d at 33, 302 N.Y.S.2d at 530.
55. F. Dickerson, PRODUCTS LIABILITY AND THE FOOD CONSUMER (1951).
56. Id. § 1.2.
57. “Open market” would seem to mark the beginning of the “stream of commerce” requirement. The implied warranties were only available to consumers within a marketplace environment.
58. The “immediate” use requirement is commensurate with the “reasonably intended” use requirement of the strict liability doctrine as it has evolved in California. See infra notes 82-84 and accompanying text.
59. 277 N.Y. 26, 12 N.E.2d 557 (1938).
60. Id. at 29-30, 12 N.E.2d at 559 (quoting Rinaldi v. Mohican Co., 225 N.Y. 70, 72, 121 N.E. 471, 472 (1918)).
-aged by reason of their use in the legitimate channels of trade.'” 62 As a result of this court-imposed duty, the plaintiff, injured through adulterated or contaminated food, was not required to prove the defendant’s unreasonable conduct or fault in packaging or manufacturing the food. Further, this standard did not require privity of contract for a plaintiff to recover—the warranty extended to any person who consumed the food. 63

The implied warranty of fitness for purpose was also developed through a series of cases involving defective automobiles. 64 In Winterbottom v. Wright, 65 the court acknowledged that latent defects of a motor coach rendered it unsafe and unfit for expected performance. However, liability was not imposed. The court, favoring limited liability exposure, drew the line at privity 66 and held that since the injured plaintiff was not the purchaser no implied warranty attached.

In Macpherson v. Buick Motor Co., 67 a New York case, Justice Cardozo held that a nonpurchasing plaintiff could sue a manufacturer for negligent manufacture and failure to inspect a car wheel that collapsed while plaintiff was driving. Although the decision was based on negligence principles—a failure of the manufacturer to inspect—the court delivered this resounding language focusing on the foreseeability of injury as a means to determine liability:

If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a

62. Id. at 281, 93 P.2d at 804 (quoting Mazetti v. Armour & Co., 75 Wash. 622, 135 P. 633 (1915)).
63. Courts initially required privity of contract for claims based on the implied warranty. If the plaintiff was not the buyer, he could not recover. In Klein, the court extended the term “consumer” to include any person for whose use the product was intended. It is not necessary that the consumer have purchased the product at all. “All those in the legitimate channels of trade” is a move toward a pure foreseeability doctrine.
64. Automobiles are perhaps the most symbolic “product” of mass production in America. Henry Ford’s system of assembly is owed a great deal of credit, not only for its contribution to industrial production techniques but also for supplying a product that has led to the development of new social, economic and legal concepts, including strict liability.
65. 152 Eng. Rep. 402, 10 M. & W. 109 (Ex. 1842). In Winterbottom, the plaintiff, a postal employee, was thrown from a small mail coach that defendant had supplied to the Postmaster-General. The court ruled that plaintiff had no cause of action since he was not in privity of contract with defendant.
66. The court in Winterbottom was concerned with restricting liability so as not to impinge upon manufacturing’s growth. It was essentially the same argument employed in Ryan v. New York Cent. R.R., 35 N.Y. 210 (1866) and in Justice Andrew’s dissenting opinion in Palsgraf v. Long Island R.R., 248 N.Y. 339, 162 N.E. 99 (1928) (Andrews, J., dissenting). The argument envisioned ever-expanding liability and the courts were concerned with limiting liability. Judges feared that if a manufacturer’s duty extended to all resulting injuries, the manufacturing machine would be severely stifled. Their solution was to create a foreseeability doctrine which vested in courts the power to limit liability.
thing of danger. . . . Whether a given thing is dangerous may be sometimes a question for the court and sometimes a question for the jury. . . . We are dealing now with the liability of the manufacturer of the finished product, who puts it on the market to be used without inspection by his customers.\textsuperscript{68}

Shifting away from the privity requirement of \textit{Winterbottom}, the court instead emphasized that defendants should be liable for any foreseeable injuries caused by their defective products, due to the dangerous character of the product and the inability of the consumer to detect a defect.\textsuperscript{69}

The two streams of liability were evolving into a doctrine whose primary concern was the protection of people injured by dangerous products through no fault of their own. Due to industrialization, the dangers of society were outgrowing the ability of the negligence system to protect people and divide liability along the most equitable lines.

Finally, \textit{Escola v. Coca-Cola Bottling Co.},\textsuperscript{70} a California case decided on negligence grounds, set the stage for a cohesive and definitive statement of products liability. Ms. Escola, a waitress, was injured when a bottle of Coca-Cola broke in her hand. She sued Coca-Cola, claiming negligence in the bottling process and manufacturing of the bottle. The court rendered judgment in her favor. The majority opinion, relying on the doctrine of res ipsa loquitur,\textsuperscript{71} ruled that the defendant had not overcome the presumption of negligence thereby created. \textit{Escola} is famous not for the majority’s holding, but rather for Justice Traynor’s concurring opinion, in which he stated:

\textsuperscript{68} Id. at 389-90, 111 N.E. at 1053 (emphasis added).
\textsuperscript{69} Id. at 383-84, 111 N.E. at 1053. This expression of heightened liability is found further in the words of Justice Cardozo: “The risk reasonably to be perceived defines the duty to be obeyed, and risk imports relation; it is risk to another or to others within the range of apprehension.” \textit{Palsgraf}, 248 N.Y. at 344, 162 N.E. at 100.

\textsuperscript{70} 24 Cal. 2d 453, 150 P.2d 436 (1944).

\textsuperscript{71} Id. at 461, 150 P.2d at 440. Res ipsa loquitur is a doctrine creating a presumption of breach of duty and an inference of proximate cause. When translated, it means “the thing, or affair, speaks for itself.” It is another procedural advantage for plaintiffs in proving their case. The three conditions necessary to fulfill the doctrine are: (1) the accident must be of a kind which ordinarily does not occur in the absence of someone’s negligence; (2) it must be caused by an agency or instrumentality within the exclusive control of the defendant; and (3) it must not have been due to any voluntary action or contribution on the part of the plaintiff. Albers v. Greyhound Corp., 4 Cal. App. 3d 463, 471, 84 Cal. Rptr. 846, 850 (1970) (plaintiff injured when he lifted a box of heavy metal cutters, which broke while lifting—box containing the cutters had just been delivered from the defendant carrier); see also Zentz v. Coca-Cola Bottling Co., 39 Cal. 2d 436, 247 P.2d 344 (1952) (plaintiff injured by exploding bottle when she reached into a cooler where defendant’s agent had placed bottles of Coca-Cola); Ybarra v. Spangard, 25 Cal. 2d 486, 154 P.2d 687 (1944) (unconscious plaintiff injured by doctors and nurses who performed an appendectomy could not specifically name the person who had injured him).
I believe the manufacturer's negligence should no longer be singled out as the basis of a plaintiff's right to recover in cases like the present one. In my opinion it should now be recognized that a manufacturer incurs an absolute liability when an article that he has placed on the market, knowing that it is to be used without inspection, proves to have a defect that causes injury to human beings.\textsuperscript{72}

Justice Traynor gave the following rationale for his opinion:

[P]ublic policy demands that responsibility be fixed wherever it will most effectively reduce the hazards to life and health inherent in defective products that reach the market. It is evident that the manufacturer can anticipate some hazards and guard against the recurrence of others, as the public cannot. . . . The cost of an injury . . . can be insured by the manufacturer and distributed among the public as a cost of doing business.\textsuperscript{73}

Subsequently, Justice Traynor's views on strict liability were adopted by a majority of the California Supreme Court in \textit{Greenman v. Yuba Power Products, Inc.}\textsuperscript{74}

In California, strict liability for manufacturing defects in products gradually grew to reach each link in the marketing chain—not only manufacturers, but lessors, bailors, licensors, retailers and wholesalers.\textsuperscript{75} By imposing liability wherever possible in the chain of marketing, the court

\textsuperscript{72} \textit{Escola}, 24 Cal. 2d at 462, 150 P.2d at 440 (Traynor, J., concurring).

\textsuperscript{73} \textit{Id.} at 462, 150 P.2d at 440-41 (Traynor, J., concurring).

\textsuperscript{74} 59 Cal. 2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1963). In \textit{Greenman}, the plaintiff was injured while using a power tool manufactured by defendant. The court determined that it was time for the strict liability doctrine to ground in tort rather than contract. \textit{Id.} at 62, 377 P.2d at 900, 27 Cal. Rptr. at 700. “A manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being.” \textit{Id.} (emphasis added). Justice Traynor refused to allow manufacturers to define their own scope of liability for defective products. Between \textit{Escola} and \textit{Greenman}, the Uniform Commercial Code (U.C.C.) was enacted, and presumably Justice Traynor was concerned with possible defenses to strict liability stemming from the Code. The first draft of the U.C.C. was prepared in 1952. As revised it was subsequently adopted by every state in the country, except Louisiana, between 1957 and 1967. J. CALAMARI & J. PERILLO, CONTRACTS 16 (West 1977). The implied warranty sections applicable to tort liability are the warranties of fitness for particular purpose (§ 2-315) and for merchantability (§ 2-314). Possible defenses available to manufacturers would be written disclaimers (§ 2-316(2)), course of dealing or trade usage (§ 2-316(3)), and possibly notions of privity, notice or other disclaimers. See generally U.C.C. §§ 2-300 to -316 (1976). The U.C.C. is codified in California at CAL. COM. CODE § 1101 (West 1975).

elevated plaintiff’s recovery as the predominant concern. This judicial shift from protecting manufacturers to protecting plaintiffs has continued and spread throughout the United States.\textsuperscript{76} Plaintiffs’ protection expanded as privity was not required and third parties, bystanders—everybody within foreseeable harm who had been injured through defective manufacture—could recover.\textsuperscript{77}

In \textit{Pike v. Frank G. Hough Co.},\textsuperscript{78} the California Supreme Court further expanded products liability by eliminating the distinction between design and manufacturing defects finding no legally justifiable distinction between the two. In \textit{Pike}, the court held that “since a product may be equally defective and dangerous if its design subjects protected persons to unreasonable risk as if its manufacture does so,”\textsuperscript{79} there is no rational distinction between the two. In \textit{Pike}, the plaintiff in a wrongful death action attempted to show that the death had been caused by a defectively designed paydozer.\textsuperscript{80} Because it lacked rear view mirrors, the paydozer, plaintiff argued, possessed an inherent design defect which created a blind spot behind the driver.\textsuperscript{81} After \textit{Pike}, a plaintiff could argue a safer possible design without proof of a physically observable defect. Thus, in

\begin{itemize}
\item \textsuperscript{76} The Restatement of Torts developed an analagous doctrine of strict liability which reads:

\begin{itemize}
\item \textsuperscript{(1)} One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if
\begin{itemize}
\item \textsuperscript{(a)} the seller is engaged in the business of selling such a product, and
\item \textsuperscript{(b)} it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.
\end{itemize}
\item \textsuperscript{(2)} The rule stated in Subsection (1) applies although
\begin{itemize}
\item \textsuperscript{(a)} the seller has exercised all possible care in the preparation and sale of his product, and
\item \textsuperscript{(b)} the user or consumer has not bought the product from or entered into any contractual relation with the seller.
\end{itemize}
\end{itemize}

\textsc{Restatement (Second) of Torts § 402A (1965)}. Federal and state courts all recognize the doctrine in one form or another.

\item \textsuperscript{77} Elmore v. American Motors Corp., 70 Cal. 2d 578, 451 P.2d 84, 75 Cal. Rptr. 652 (1969). “If anything, bystanders should be entitled to greater protection than the consumer or user . . . . Consumers and users, at least, have the opportunity to inspect for defects . . . .” \textit{Id.} at 586, 451 P.2d at 89, 75 Cal. Rptr. at 657.

\item \textsuperscript{78} 2 Cal. 3d 465, 467 P.2d 229, 85 Cal. Rptr. 629 (1970); \textit{see also} Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972).

\item \textsuperscript{79} \textit{Pike}, 2 Cal. 3d at 475, 467 P.2d at 236, 85 Cal. Rptr. at 636. Because this case dealt with an omission (design defect), it expanded the cause of action to a more subjective level. Previously, only affirmative defective acts could qualify. However, defects in design are potentially more dangerous than defects in manufacturing because a manufacturing defect at least has physical evidence which can be inspected. Design defects are invisible to all but the trained eye.

\item \textsuperscript{80} \textit{Id.} at 469, 467 P.2d at 231, 85 Cal. Rptr. at 631.

\item \textsuperscript{81} \textit{Id.}
an effort to make injured plaintiffs whole, the court provided another avenue of proving liability.

In *Barker v. Lull Engineering, Co.*, the supreme court developed the current California standard for proving a design defect. The court held that a product is defective in design if

it fail[s] to perform as safely as an ordinary consumer would expect when used in an intended or reasonably foreseeable manner, or . . . the plaintiff proves that the product’s design proximately caused his injury and the defendant fails to prove . . . that on balance the benefits of the challenged design outweigh the risk of danger inherent in such design.83

In interpreting the second “prong” of the test, the court said that a jury may consider, among the relevant factors,

the gravity of the danger posed by the challenged design, the likelihood that such danger would occur, the mechanical feasibility of a safer alternative design, the financial cost of an improved design, and the adverse consequences to the product and to the consumer that would result from an alternative design.84

Two further steps in the products liability continuum should be highlighted. First, in *Daly v. General Motors Corp.*, the court determined that California’s system of comparative fault should be expanded to include strict liability causes of action to insure that strict liability is not absolute liability. Thus, if a plaintiff is negligent and his negligence contributes to his injury, his recovery is lessened in proportion to his fault.86 Second, in *Campbell v. General Motors Corp.*, the California

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82. 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).
83. Id. at 435, 573 P.2d at 457-58, 143 Cal. Rptr. at 239-40.
84. Id. at 431, 573 P.2d at 455, 143 Cal. Rptr. at 237. The court essentially provided manufacturers with a defense to liability by developing this cost-benefit analysis. While products liability has always been conditional liability to the extent that a defect must be proven, under this second prong a defect can now be proved but rationalized according to the cost-benefit analysis. By balancing the equities, juries can theoretically arrive at the most “just” decision. Plaintiffs will argue, however, that the two-prong test can be read as two separate avenues of proof. If a plaintiff can satisfy the first prong—that is, merely show the product failed to meet consumer expectation—the cost-benefit analysis would not come into play. The court in *Campbell v. General Motors Corp.*, 32 Cal. 3d 112, 649 P.2d 224, 184 Cal. Rptr. 891 (1982), indicated that by satisfying the first prong of the test, a prima facie case of strict liability existed. Naturally, manufacturer defendants will argue for a narrower reading of *Barker* and *Campbell*, thus allowing the cost-benefit analysis in every case. This will tend to exculpate the defendant manufacturers if they can convince the jury that, given the factors involved, they could not have manufactured the product any better.
85. 20 Cal. 3d 725, 575 P.2d 1162, 144 Cal. Rptr. 380 (1978).
86. Comparative fault is a system of equitable allocation of legal responsibility that takes
Supreme Court re-acknowledged the importance of both the “consumer expectation” prong of the Barker test and the jury in the determination of strict liability causes of action.88

B. Policy Goals of Strict Liability

In order to fully understand strict liability and its possible expansion and application to electric utilities, the goals of strict liability must first be discussed.89 In a nutshell, strict liability is applied both to compensate injured parties and to achieve social ends by reducing accidents.90

The first policy justification supporting strict liability is the concept of loss spreading.91 A manufacturer can spread the cost of personal injuries among all users, not just the injured few who are often blameless and injured by chance. This loss spreading relieves a significant burden from the faultless plaintiff and shifts it to the manufacturing entity which can then pass it on to the entire user constituency as a cost of doing business. Under strict liability, the price a consumer pays for a product reflects societal costs as well as production and distribution costs. Thus, the enterprise charges and the public pays a more precise “true” cost of the enterprises’ doing business.

A second policy justification for imposing strict liability is that of relieving the plaintiff’s evidentiary burden.92 Manufacturers occupy a better position to understand why a “product” failed; to make the injured, unknowing plaintiff prove the often difficult standard of fault would be onerous.93 Proof of negligence in such cases may be so com-

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87. 32 Cal. 3d 112, 649 P.2d 224, 184 Cal. Rptr. 891 (1982).
88. Id. at 125-26, 649 P.2d at 232-33, 184 Cal. Rptr. at 899-900. Campbell reached the supreme court on appeal after defendant had prevailed on a motion for summary judgment. The court ruled that this action, brought for the lack of safety features on a bus, contained factual determinations such that only a jury could rule on the contested design.
89. Strict liability may be thought of as a process—a response to society’s needs—as well as a set of articulable legal goals.
90. This is one of the commonly cited reasons for imposing strict liability. Letting plaintiffs recover even though the injury was not defendant’s “fault” supposedly leads manufacturers to create safer products and use safer techniques to avoid the costs of liability. Theoretically, it costs less to create safer items than to pay out judgments.
92. Id. at 517.
93. This is another common reason cited for the use of strict liability. It is basically unfair to require injured consumer plaintiffs to shoulder the burden of proving fault. Manufacturers use highly technical equipment making it difficult and expensive, even with liberal discovery rules, for a plaintiff to review the defendant’s manufacturing operation to determine how his
plex that injured plaintiffs need an equitable short cut to liability. Moreover, strict liability provides an impetus for manufacturers to create safer items and operate in a more responsible way. The incentive is to avoid accidents before they occur by investing in safer products and procedures.

These justifications exhibit three interrelated but distinct concerns: economic (risk distribution); legal (alleviating the plaintiff’s burden); and social (safety impetus). In 1978, Barker added a fourth concern to the above noted triad—that of the interpersonal (consumer expectation). To justify any extension of the doctrine, therefore, all four policy goals must be satisfied.

Strict liability is a system which is restrained or expanded as policy dictates. By weighing policy priorities, a workable balance is achieved. Aggressive advancement of the strict liability doctrine is consistent with growing concerns for consumer protection and environmental safety. “Products liability is only the latest and furthest step in a general conceptualization of the legal status of consumers.” New economic and social policy considerations suggest an expansion of strict liability to other facets of consumer commercial relationships.

V. ANALYSIS

A. Electric is a Product

Electricity is capable of being owned, bartered, sold, stored, stolen and taxed. It is sold in the marketplace. It is purchased by consumers. It is intended to be used in foreseeable and reasonable ways and the con-

94. See generally Escola v. Coca-Cola Bottling Co., 24 Cal. 2d 453, 462, 150 P.2d 436, 440-41 (1944) (Traynor, J., concurring); see also text accompanying supra note 73.


96. Comment, supra note 9, at 422; see also Tobriner, Retrospective: Ten Years on the California Supreme Court, 20 UCLA L. Rev. 5 (1972).

97. Electricity is a form of energy that can be produced, confined, controlled, transmitted and distributed in the stream of commerce. Smith v. Home Light & Power Co., 695 P.2d 788 (Colo. Ct. App. 1984); see also Williams v. Detroit Edison Co., 63 Mich. App. 559, 234 N.W.2d 702 (1975); Wirth v. Mayrath Indus., 278 N.W.2d 789 (N.D. 1979); Ransome v. Wisconsin Elec. Power Co., 87 Wis. 2d 605, 275 N.W.2d 641 (1979); Kemp v. Wisconsin Elec. Power Co., 44 Wis. 2d 571, 172 N.W.2d 161 (1969). In holding that electricity was a product, the court in Elgin Airport Inn, Inc. v. Commonwealth Edison Co., 88 Ill. App. 3d 477, 410 N.E.2d 620 (1980) stated that “[e]lectrical energy is artificially manufactured, can be measured, bought and sold, changed in quantity or quality, delivered . . . .” Id. at 481, 410 N.E.2d at 624.
consumer has an expectation concerning its fault-free nature.\textsuperscript{98} Case law has held electricity to be both a product for products liability actions\textsuperscript{99} and a good for the purposes of the Uniform Commercial Code.\textsuperscript{100} “[T]he sale and delivery of utility products is no more a service than is the sale and delivery of any other product.”\textsuperscript{101}

These characteristics of electricity are commensurate with those of a product for the traditional purposes of products liability. The Model Uniform Product Liability Act\textsuperscript{102} defines product as “any object possessing intrinsic value, capable of delivery either as an assembled whole or as a component part or parts, and produced for introduction into trade or commerce.”\textsuperscript{103} A recent Indiana Court of Appeals decision held that electricity was a product because it was (1) a thing; (2) existing; and (3) movable, with the latter two qualities operating at the same time.\textsuperscript{104}

In discussing the product/service distinction in California, Arthur Dunne established three categories of services where products are involved: (1) where purely professional or advisory services are performed; (2) where a product is used by the supplier in the performance of the service; and (3) where in the course of supplying the service, the customer is given a product to use.\textsuperscript{105} As the challenged “product” moves

\begin{footnotes}
\footnotetext{98}{Because the California application of products liability after Barker depends in part on consumer expectation, that expectation becomes a substantive quality which must be pleaded when identifying a product for a products liability cause of action. See Barker v. Lull Eng’g Co., 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978).}


\footnotetext{100}{See, e.g., Kulhanjian v. Detroit Edison Co., 73 Mich. App. 347, 251 N.W.2d 580 (1977); Buckeye Union Fire Ins. Co. v. Detroit Edison Co., 38 Mich. App. 325, 196 N.W.2d 316 (1972); see also U.C.C. § 2-105(1) (1976). The court in Pierce held that an implied warranty of fitness cause of action under the California Uniform Commercial Code was warranted: “In light of our holding . . . that electricity is a product for purposes of strict liability in tort we assume arguendo that electricity may also be considered a good for purposes of the California Uniform Commercial Code . . . .” Pierce v. Pacific Gas & Elec. Co., 166 Cal. App. 3d 68, 86 n.12, 212 Cal. Rptr. 283, 294 n.12 (1985).}

\footnotetext{101}{See Mallor, Utility “Services” Under the Uniform Commercial Code: Are Public Utilities in For a Shock?, 56 NOTRE DAME L. REV. 89, 96 (1980) (emphasis added).}

\footnotetext{102}{MODEL UNIFORM PRODUCT LIABILITY ACT, 44 Fed. Reg. 62,714 (1979).}

\footnotetext{103}{Id. at 62,717.}

\footnotetext{104}{Helvey v. Wabash County REMC, 151 Ind. App. 176, 278 N.E.2d 608 (1972).}

\end{footnotes}
along the continuum from category one to category three the chances increase that a court will find it to be a "product" for products liability purposes.

Where on this continuum would electricity fit? Certainly, the consumer uses electricity. The product is delivered to the consumer and the consumer utilizes the electricity to light the home, cook the food or power the television. The product is not being used by the utility in any way, except in the sense that the electricity may help to run power stations or serve another labor related function. Clearly, electricity is not the delivery of any advisory or professional service. Fitting nicely into category three, utilizing Mr. Dunne's definitions, electricity is deserving of "product" status.

In Pierce v. Pacific Gas & Electric Co., the court acknowledged that no previous California cases had considered whether electricity could be a product for the purposes of applying strict liability. The appellate court looked to other jurisdictions for guidance. After finding that electricity was a "product" in Ms. Pierce's factual situation, the court determined that the policy reasons for applying strict liability were present.

The court in United Pacific Insurance Co. v. Southern California Edison Co. did not directly discuss whether electricity was a product. However, in deciding whether strict liability extended to the utility transmission facilities, the court stated that electricity was not a product within the contemplation of strict liability's creators. The court seemed to say that before the electricity is transferred to the plaintiff consumer, it is not a product within the contemplation of the doctrine. Therefore, the court did not consider electricity in the same manner as the court in Pierce. Instead, it placed predominant importance on the transfer of some property right, thus signifying the concept of marketing. In Pierce, the electricity had been marketed, by being transferred through Ms. Pierce's meter into her home. Had the electricity in United Pacific been transferred to a plaintiff consumer, chances are the court would have found electricity to be a product.

107. Id. at 82, 212 Cal. Rptr. at 290-91; see also supra notes 10-18 and accompanying text.
109. Id. at 707, 209 Cal. Rptr. at 822; see also supra notes 19-28 and accompanying text.
110. Id. at 707-08, 209 Cal. Rptr. at 822-23.
111. Pierce, 166 Cal. App. 3d at 84, 212 Cal. Rptr. at 292.
112. Because the case was one of first impression in California, the United Pacific court looked to case law from jurisdictions outside California in determining that strict liability would not apply to the transmission facilities. Essentially, the court in Pierce did the same.
Terming electricity a product, however, does not end the analysis. Before strict liability may apply, subsequent questions must be asked. Courts have limited liability based on two policy concerns: (1) the product sold to the consumer is not defective according to the strict liability formula; and (2) the injury occurs before the product is in a finished, intended state and, therefore, not within the stream of commerce.

B. What is Defective Electricity?

In Pierce v. Pacific Gas & Electric Co.,113 the court found that the electricity arriving at the plaintiff’s home was defective because it was nearly sixty times its intended voltage.114 The court reasoned that a manufacturing or production defect occurs when an outcome deviates from the manufacturer's intended result and the consumer's reasonably foreseeable expectation. It found that “a defective product is one that differs from the manufacturer’s intended result or from other ostensibly identical units of the same product line.”115 Because 120-140 volts was the normal voltage delivered to consumers, the 7000 volts delivered to Ms. Pierce's residence was far in excess of both the plaintiff’s reasonable expectation and the manufacturer's intention. “‘When a product fails to satisfy . . . ordinary consumer expectations as to safety in its intended or reasonably foreseeable operation, a manufacturer is strictly liable for resulting injuries.’”116

Arthur Dunne defined the elements of a defective product in California in the following manner: (a) the condition of the product must cause harm to person or property when properly used; (b) the condition of the product has an unsafe aspect which could be eliminated or made safer without affecting the planned use of the product; (c) the defect can stem from material, workmanship or design; (d) the defect need be one which renders a product unreasonably dangerous; (e) no elements of negligence need be present; and (f) the defect may be created after the product leaves the supplier by the supplier’s failure to perceive possible conditions which make the product unsafe.117

Since Mr. Dunne formulated this definition, however, important ju-
dicial decisions have altered the inquiry. First, a product no longer must be "unreasonably dangerous" in order to be defective. Although the Restatement of Torts still maintains that language, it has been eliminated by case law. 118 Second, Barker v. Lull Engineering, Co. 119 refocused the inquiry to both the consumer's expectation and the manufacturer's intended result. It was this refocusing that the appellate court in Pierce held as determinative. 120 In addition to being well in excess of Pacific Gas & Electric's intended result, the 7000 volts actually delivered to Ms. Pierce was well beyond her, or any homeowner consumer's, expectation.

The electricity at issue in Pierce does, however, generally fit into Mr. Dunne's definition. It was the "defectiveness" of the electricity that caused both injury and property damage to Ms. Pierce. The electricity was properly used. Although the court found that there was possible comparative negligence, 121 had the electricity not been "defective," i.e., had it been at its normal intended and expected voltage, the injury and damage would not have occurred. The court found that the delivery could have been made safer, the defect stemmed from a material (in the sense that each electron is a material component of the flow of electricity) and the supplier could have perceived the dangerous conditions. 122

Although the court in United Pacific Insurance Co. v. Southern California Edison 123 did not characterize electricity as a product, it did intimate that because high voltage electric transmission facilities are not placed in the stream of commerce, any defects in the delivery of the electricity would not trigger strict liability's application. 124 Given the precedent of Barker, had the electricity in United Pacific already been marketed, the court probably would have found the product (electricity) to be defective in that the design of the system deviated from the manufacturer's intended result and the consumer's expectation. 125

118. Cronin v. J.B.E. Olson Corp., 8 Cal. 3d 121, 501 P.2d 1153, 104 Cal. Rptr. 433 (1972). The court stated "[w]e think that a requirement that a plaintiff also prove that the defect made the product 'unreasonably dangerous' places upon him a significantly increased burden and represents a step backward in the area pioneered by this court." Id. at 134, 501 P.2d at 1162, 104 Cal. Rptr. at 442; see also Luque v. McClean, 8 Cal. 3d 136, 501 P.2d 1163, 104 Cal. Rptr. 443 (1972).

119. 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); see supra notes 82-84 and accompanying text.

120. Pierce, 166 Cal. App. 3d at 77 n.1, 212 Cal. Rptr. at 287 n.1.

121. Id. at 84 n.11, 212 Cal. Rptr. at 293 n.11.

122. See supra notes 10-18 and accompanying text for a discussion of Pierce.


124. Id. at 707-08, 209 Cal. Rptr. at 822-23.

125. Id.
C. When is Electricity in the Stream of Commerce?

If it is accepted that electricity can be a product and can be defective, the next hurdle is to define "stream of commerce" and to discover when electricity enters this commercial pathway. Although Barker v. Lull Engineering, Co. does not mention the "stream of commerce," courts have used such a term to describe the point where a "product" comes into existence for products liability purposes. While an item may have the characteristics of a "product" as that term is generally known, it is only after the "product" enters a commercial pathway that it becomes a "product" for purposes of strict liability law. Accordingly, it is important to determine when this magical transformation takes place. It is equally important to determine the courts' reasoning for establishing such a point.

The court in Pierce v. Pacific Gas & Electric Co. equated "stream of commerce" with "marketable voltage." In most cases that occurs when the electricity is metered at the consumer's home. At that time the commercial relationship between consumer and seller is crystallized. The electricity's reasonable intended use—necessary to the strict liability equation—does not materialize until metered. Finally, the transmission instrumentalities themselves are not transferred to the consumer; they remain in the control of the utility, and thus, not in society's commercial stream.

The court in United Pacific Insurance Co. v. Southern California Edison Co. concentrated on the stream of commerce question in finding

126. 20 Cal. 3d 413, 573 P.2d 443, 143 Cal. Rptr. 225 (1978); see supra notes 82-84 and accompanying text.
128. Id.
129. Id.
130. Id. How anomalous that under Pierce and United Pacific courts' reasoning, an accident occurring in an open field would be analyzed under a negligence standard while if that same accident occurred within the home strict liability would apply. Assume that a child could be injured by a massive electrical emission in both cases and the child is without fault. In both, the electricity could be found defective. Yet, only within the home would strict liability attach. Or, consider the patient who needs blood while in the hospital. If he gets the blood while in the hospital, it is normally viewed as incident to a service—no strict liability. See, e.g., Fogo v. Cutter Laboratories, Inc., 68 Cal. App. 3d 744, 137 Cal. Rptr. 417 (1977); Shepard v. Alexian Bros. Hosp., Inc., 33 Cal. App. 3d 606, 109 Cal. Rptr. 132 (1973). Presumably if the blood is purchased and brought home without any services at all, strict liability would attach. However, see infra note 146 for a discussion of California Health & Safety Code § 1606 which statutorily answered this particular question.
that strict liability should not extend to transmission facilities.¹³¹ Necessary to its holding was a decision that the stream of commerce requirement was fulfilled by the marketing of the electricity. Since the high voltage facilities were not sold to the plaintiff, and were controlled and used solely by the supplier, no product was being marketed at the time of the fire.¹³² Concurrently, the electricity being transmitted through the power cables was not being marketed, and therefore, not being placed into the stream of commerce.

The point where electricity enters the stream of commerce is a judicial determination. In applying strict liability, courts have chosen the point where it reaches the consumer's meter at either his residence or business. Some other possible points of transformation could be: (1) the place of generation; (2) subsequent to or following switching points along the way; or (3) at the last distribution substation. However, courts have reasoned that poles, wires and transformers are not sold to the public, nor is the purpose of the commercial transaction—the sale of electricity—completed until the electricity is actually metered. Until then, the product is unfinished.¹³³

In sum, the Pierce court's determination that electricity is a consumable product is consistent with existing case law and products liability policy goals. The holding in United Pacific, that transmission facilities are not products, also conforms with existing precedent. Does, however, the holding of United Pacific deserve another look, to see whether the analytical framework of products liability law and changing societal needs justify the asserted extension of strict liability to electrical transmission facilities?

D. Should Strict Liability Apply to Transmission Equipment?

Extending strict liability to transmission facilities¹³⁴ would require a broad view of both the "product" that the utility company sells and the point at which the product enters the "stream of commerce." Such a


¹³² Id.

¹³³ "Where the product has not yet been released for its intended use, the situation is different. . . . The factors on which the Greenman rule rests have not been brought into operation as to anyone in the chain of supply." DuNNE, supra note 105, § 42.

holding would impose strict liability from the moment the electricity is produced at the hydroelectric or nuclear generating plant until the electricity enters the home. Strict liability would apply if a utility’s distribution equipment and manufacturing design were considered part of the “product,” and the “product” was considered to have entered the stream of commerce when placed in a position that threatens harm to the public.\textsuperscript{135}

New remedies are constantly needed to keep pace with an evolving society. We require change when existing doctrines fail to remedy plaintiffs’ injuries or satisfy society’s needs. The development of products liability law focused on this transition by establishing a consumer/manufacturer base. As with other areas of law, the present liability lines could not have been expected to last forever. Doctrinal changes are not only results of legal logic, but also pragmatic reactions to extra-judicial forces in society.\textsuperscript{136}

As noted above,\textsuperscript{137} imposition of products liability is based on several distinct but interrelated concerns: loss spreading, safety precautions, lightening the plaintiff’s evidentiary burden and fulfilling consumer expectations. Changes in economic, social, legal and interpersonal relationships created a need for new methods of recovery. Products liability law evolved to fit those needs. Changed perceptions of business enterprises altered the attitudes of both consumers and courts toward commercial relationships.

Although the test for applying strict liability is often stated as products versus services, the true distinction is between sales of products versus sales of services. The transfer qualities of a sale between buyer and seller are present in either case. If the transaction involves a product which changes hands within a commercial relationship, “[t]he additional element of service should not logically preclude the application of a warranty.”\textsuperscript{138}

A second issue arises in applying strict liability when a product is used in the rendition of a service: is that product the cause of the injury? For example, an attorney does not insure the soundness of his opin-


\textsuperscript{136} Comment, supra note 9, at 423.

\textsuperscript{137} See text accompanying supra note 95.

ions. Although an attorney does create a "product"—the will, brief or any other document—it is not a defect in the document itself, however, that causes the injury. Similarly, architects directly produce a tangible product—a blueprint plan—and indirectly another tangible product—a structure. However, the defect in the blueprint does not cause the collapse, the defect in design of material does.

There are three identifiable situations to consider when products are supplied during the performance of a service: (1) when the entirety of the transaction is to transfer the product; (2) when the product is used by the transferor while performing the service; and (3) when the product used is incidental to the primary service. Courts employ policy justifications to differentiate the transactions that could arguably fit into one or more of these categories. There is a qualitative difference, however, between the transfer of the product, and the use of a product by a possible defendant. The existence of the commercial transfer initiates the strict liability "stream of commerce" component, thus fulfilling traditional strict liability concerns.

The loss-spreading argument used to impose strict liability on manufacturers can be applied with varying degrees of effectiveness to purveyors of services. Since manufacturers make use of insurance coverage as a method of risk distribution, the efficiency of service insurance should be considered a loss spreading factor, in addition to the simple definition of "service" or "product."

Similarly, the recipient's reasonable expectations as to quality of services received may be applied. If the consumer is the focal point, and the community is the protected standard, "services" as well as "products" might be governed by strict liability. The consumer could then reasonably expect no defects in all transactions in which he participates.


141. However, for a case in which the defective instrument was not transferred, but merely used, see Garcia v. Halsett, 3 Cal. App. 3d 319, 82 Cal. Rptr. 420 (1970) (owner of laundry strictly liable where customer injured by defective washing machine). See DUNNE, supra note 109 and accompanying text for a similar formulation.

142. The term "reasonable" relates to the consumer's expectations and community standards rather then the actor's conduct. In Barker, the term "intended or reasonably foresee-
Supplying electricity, as well as other utilities, has traditionally been termed the delivery of a “service.” However, it is not a true service in the sense that the consumer bargains for the performance of an act. Rather, it has been deemed a service because the delivery is the action necessary for the “product” to be used. Historically, courts have uniformly held that pure services cannot justify the application of strict liability. Of course, courts are now comfortable in applying strict liability to “pure” products, such as cars, appliances and household goods. The hybrid character of electricity, like blood supplied by a hospital, provides the courts with their most formidable challenge in applying strict liability principles.

Courts often rely upon an “essence” test to determine whether strict liability principles should apply to hybrid entities. The analysis considers which element to be more predominant; what is the “essence” of the challenged sale/service? Courts have sought to divide the hybrid into

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143. See supra notes 33-44 and accompanying text; see also CAL. PUB. UTIL. CODE § 2775 (West Supp. 1978).

144. This is an evaluation applicable under the Uniform Commercial Code and standard contract law.

145. “Pure services” would be all services that traditionally have been known as such, e.g., work provided by attorneys, architects, accountants, mechanics, florists and judges. However, if a product were used or transferred during the service transaction, the distinctions would begin to blur.

146. Fogo v. Cutter Laboratories, Inc., 68 Cal. App. 3d 744, 137 Cal. Rptr. 417 (1977); Shepard v. Alexian Bros. Hosp., 33 Cal. App. 3d 606, 109 Cal. Rptr. 132 (1973). To eliminate the judicial inquiry into whether supplying blood was the sale of a product or a service, the California Legislature enacted Health & Safety Code § 1606 which reads:

The procurement, processing, distribution, or use of whole blood, plasma, blood products, and blood derivatives for the purpose of injecting or transfusing the same, or any of them, into the human body shall be construed to be, and is declared to be, for all purposes whatsoever, the rendition of a service by each and every person, firm, or corporation participating therein, and shall not be construed to be, and is declared not to be, a sale of such whole blood, plasma, blood products, or blood derivatives, for any purpose whatsoever.

CAL. HEALTH & SAFETY CODE § 1606 (West 1979).

The supplying of blood by a hospital was found to be subordinate to the paramount function of providing trained medical personnel and specialized facilities to restore patients’ health. Fogo, 68 Cal. App. 3d at 752, 137 Cal. Rptr. at 421. The court there distinguished those commercial transactions in which the essence of the transaction was solely to transfer the product, where the seller was in the business of selling that product, and for that alone was the seller paid. Id. An electric utility does precisely that.

For another hybrid example see Fakhoury v. Magner, 25 Cal. App. 3d 58, 101 Cal. Rptr. 73 (1972), which involved the sale and installation of furniture by a landlord.

its component parts. If the product portion was predominant, then strict liability (or, in the UCC, implied warranty) would apply to the entire hybrid. If the “service” portion was the focus of the transaction then courts employ common-law negligence.

In distinguishing sales of products and sales of services, it is wise to note the historical reasons why strict liability and its predecessor, implied warranty, attached to products and not to services. The law of product sales developed in English Law as a legal response to commercial problems created by England’s industrialization. Services were not being industrialized at the same pace as sales of products. There was no concurrent business need for implied warranty in services, as the traditional legal concepts were still appropriate.

The English Sales of Goods Act, passed in 1894, focused on protecting consumers who purchased goods:

Where the goods are bought by description from a seller who deals in goods of that description (whether he be the manufacturer or not), there is an implied condition that the goods shall be of merchantable quality.

Provided that if the buyer has examined the goods, there shall be no implied condition as regards defects which such examinations ought to have revealed.

Because the implied warranty in product sales was a creation of legislation rather than of the common law, there was arguably greater judicial reluctance to apply it in other areas. In the United States, the great speed of industrialization in the late nineteenth and the early twentieth centuries perpetuated this dichotomy between implied warranty for products and the negligence standard for services.

Policy considerations did, however, create some legislative protections. Public concern for the absolute safety of food promulgated the pure food and drug acts. Work-related injuries forced the creation of

148. Comment, supra note 9, at 405; see also Prosser, The Implied Warranty of Merchantable Quality, 27 MINN. L. REV. 117 (1943).
149. This is anomalous in a sense, because a buyer of a “good” had a chance to inspect for a defect. Caveat Emptor would apply and, in the absence of fraud by the merchant, one would think that no implied warranty would attach. A service would be unsusceptible to an inspection because a defect in the service would not be apparent even to an inspecting buyer. See generally Comment, supra note 9.
151. Id. § 14(2).
152. F. Dickerson, supra note 55, at 19-57; see also Comment, supra note 9, at 405-06.
a no-fault worker's compensation system. These were responses by the legislature to protect consumers in a highly fragmented society with mass-produced consumer goods created far from their point of purchase. By the time Greenman v. Yuba Power Products, Inc. was decided, the California Supreme Court recognized that the foundation of warranty in these cases was no longer contractual-consumer but consumer-tort. In establishing products liability, the Greenman court swept aside the anachronistic contractual definition of implied warranty, but retained the product/service distinction. This semantic construction has endured and is now a decisive criteria in deciding when to apply strict liability.

Nevertheless, courts have found that public policy is best served by applying strict liability at the point where the consumer assumes control of the product. The application of the doctrine, courts say, should include factors of economic loss to intervening parties in the chain of commerce as well as to the manufacturer. Courts seem to imply that a logical products liability system should not rely entirely upon indemnification but should involve reasonable balancing of the interests involved.

Who is the "consumer"—perhaps a better term is "ultimate consumer." The law distinguishes between goods purchased for further production and goods that directly satisfy human wants; between the industrial consumer and the ultimate product-buying consumer. Strict

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153. In California, see, e.g., Workmen's Compensation and Insurance & Safety Act of 1917 (codified as amended at CAL. INS. CODE §§ 11630-11759) (West 1972)).
155. Id.
156. There seems to be an inherent difficulty in conceptualizing a system of liability without fault. There must be a human characteristic which makes us think in terms of individual fault as blame. Additionally, the law tries to satisfy both plaintiffs' and defendants' points of view. In some sense this attitude is reflected in the second prong of the balancing test in Barker. See supra notes 82-84 and accompanying text. However, is it not facially absurd to ground strict liability in reasonableness? The point of strict liability is to disregard the reasonable person.

Justice Mosk's dissent in Daly, supra note 85, highlights this conceptual crisis: "How can comparative fault exist in a cause of action which proceeds irrespective of fault? What can a jury compare the plaintiff's fault with if the defendant's fault is not at issue?" Daly v. General Motors Corp., 20 Cal. 3d 725, 783, 575 P.2d 1162, 1185, 144 Cal. Rptr. 380, 403 (1978) (Mosk, J., dissenting). Although Justice Mosk was discussing the balancing of liabilities in Daly's comparative fault equation, his point is well taken. A system of strict liability is inherently and necessarily unconcerned with "reasonableness" in its legal definition. The purpose of Greenman and its progeny was to remove fault and the reasonable person from the discussion. See also supra note 81 for discussion regarding the second prong of Barker.

The reasonable person could always agree with a manufacturer. After all, a manufacturer will have more resources to try their cases with, and they will always argue the importance of manufacturing as a whole against the injury of just one person. This might seem reasonable to any jury. In many cases, however, juries sympathize with the injured plaintiff, which might prompt them to award huge judgments.
liability applies in transactions involving the latter, but not the former. The need for marketing the "product" requires some consumer to whom the product can be marketed.\textsuperscript{157}

The word "consumer" can mean (1) an individual buyer of a particular product, (2) an individual buyer related to a total of purchasable wants, (3) all buyers who want a particular product, and (4) all buyers as related to the total of their purchasable wants.\textsuperscript{158} When courts analyze consumer claims of strict liability, they generally envision one particular consumer, the plaintiff, purchasing the particular product in question. A person buys a defective product, is injured by it, brings a cause of action based on strict liability and the court evaluates the argument based on those facts. If courts viewed each purchase as representative of the total consumer population related to the total of their consumable wants, strict liability could be extended to the point when the product is put into the chain of marketing, i.e., after created but before it leaves the manufacturer. At that point, the product is on its way to be consumed by someone. The heart of the argument is that consumers need help because they are so divorced from the products' manufacture and cannot know of defects. Common interest in common products give no more sophistication between buyer and seller than the single purchaser who brings the purchased product home.

Case law has consistently held that a plaintiff becomes a consumer of electricity only after the electricity is metered at his or her residence. This is the policy cut-off point; it insulates manufacturers and constrains liability, while protecting injured plaintiffs.\textsuperscript{159} The consumer's expectation of when the electricity becomes marketable is given as the common reason, marketability being equated with expected voltage.\textsuperscript{160} However, is the amount of voltage what the consumer expects? Or is it that a consumer expects the voltage, no matter what its power, to be safely transmitted, metered or not. The electricity's reasonably intended use is not just a factor of the amount of voltage, but of how the voltage is delivered as well.\textsuperscript{161}

\textsuperscript{157} This distinction is probably based on the historical supposition that ultimate consumers are less sophisticated and knowledgeable, with less bargaining power than commercial consumers. See Comment, supra note 9, at 415-18.

\textsuperscript{158} Id.


\textsuperscript{160} By defining expected voltage as the consumer expectation, the court seems to answer its own question. Consumers will always expect the normal house voltage of approximately 110-120 volts; therefore, consumers' expectations will always be defined at the point that voltage is stepped-down from the power lines, i.e., at the consumer's meter.

\textsuperscript{161} This requirement is a combination of both the defendant's intended result and the
Installing an antenna on a roof carries with it an expectation. The installer expects that overhanging wires are not so defectively designed as to cause potential risk of harm. The electricity passing through the wires enters a consumer's house. The electricity itself is on its way to being bought. The electricity is being moved, used, and there exists a concomitant expectation as to its value and safe delivery. Yet, there is no strict liability. Even if the electricity were in a defective state, there would be no strict liability. Under the reasoning of Pierce and United Pacific, the doctrine only gains its teeth when electricity passes into the consumer's private metering system.\(^{162}\)

Creating a definite point where strict liability attaches is arguably too inflexible a standard in light of the broad remedial purposes of the doctrine. If a purpose is to protect "innocent" consumers, why attach meaning to some magical point in time where different standards of liability exist on either side. One commentator has developed a new test for determining when a product enters the stream of commerce.\(^{163}\) It provides that the product enters the stream of commerce when it is placed by the manufacturer (lessor, bailor or retailer) in a manner that makes it dangerous to the public. This test refocuses the evaluation of the "point" when strict liability would become applicable to the actions of the defendant and not those of the unsuspecting public. It also provides a flexible standard in line with strict liability concepts, and encompasses more types of "products" and variations of business/consumer relationships.\(^{164}\)

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164. In Bigbee v. Pacific Tel. & Tel. Co., 34 Cal. 3d 49, 665 P.2d 947, 192 Cal. Rptr. 857 (1983), a plaintiff sued after suffering severe injuries when struck by a car while standing in the
A utility company is clearly in the business of selling its particular product to consumers. However, because the utility does not sell the equipment to the consumer, courts have determined that strict liability is inapplicable to electrical transmission facilities.\(^{165}\) This requirement seems to have developed to exempt the occasional seller from strict liability, the rationale being that the buyer somehow relies less on the non-merchant seller than the merchant seller.\(^{166}\) This rationale may have been proper in early twentieth century civil law when privity was still necessary. However, the doctrine has extended to third parties and bystanders in an effort to protect all possible plaintiffs within foreseeable harm. The Restatement (Second) of Torts comments on this expansion:

> The basis for the rule is the ancient one of the special responsibility for the safety of the public undertaken by one who enters into the business of supplying human beings with products which may endanger the safety of their persons and property, and the forced reliance upon that undertaking on the part of those who purchase those goods.\(^{167}\)

Extending strict liability to injuries caused by defective design of transmission facilities would be consistent with this policy by placing the burden of responsibility for public safety with the business producing the product—the utility producing the electricity.

Although a utility company does not sell transmission facilities, and they are not intended for public consumption, such equipment is an integral part of both the company’s commercial venture and the electrical product itself. “The consumer is necessarily exposed to the risks of the entire system.”\(^{168}\) Utility company equipment is omnipresent, and a consumer must completely rely upon its safety. “If placing goods in the stream of commerce means placing them where they expose the public to a high risk of harm, a utility company’s defective equipment is in the stream of commerce.”\(^{169}\)

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165. See, e.g., United Pacific, 163 Cal. App. 3d at 706-07, 209 Cal. Rptr. at 822.
166. Comment, supra note 9, at 407.
167. Restatement (Second) of Torts § 402A comment f (1965).
169. Id. at 102.
In addition to providing relief to injured consumers, strict liability is aimed at motivating manufacturers and the ensuing chain of commerce to make society safer. Why do we draw the line of transformation from negligence to strict liability at the point of plaintiff’s sovereignty (the home, the meter); why do we not apply strict liability before the challenged “product” leaves the defendant’s hands? The defendant’s participation in the transaction is to manufacture, distribute, lease or supply the product to the general public (and plaintiff in particular). The defendant’s role is finished and complete when the “product” leaves its hands. But while the product is still in the manufacturer’s hands, ought we not demand a higher standard of liability for the precise policy reasons articulated by strict liability concerns? Certainly, the defendant would be in a better position to know of and correct defects.

There would not be “absolute” liability for strict liability causes of action against facilities, as a Daly comparative fault analysis would prohibit any disproportionate recovery relating to the victim’s own negligence. The doctrine would not serve as purely an indemnity device. Manufacturers, and all members of the chain of distribution, would not be the insurers of the society. Additionally, the balancing test of the second Barker prong would allow companies to argue that costs out-

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170. See supra notes 74-75 and accompanying text.
172. Indeed, the court in Pierce found that Ms. Pierce’s home electrical system contained three defects which could, during trial, be evidence of her own counterbalancing negligence. Evidence showed that a power cable had cracked insulation, the propane gas system was grounded improperly and a private well provided an inadequate ground for the entire electrical system. Pierce, 166 Cal. App. 3d at 84 n.11, 212 Cal. Rptr. at 292 n.11. However, a comparative fault analysis could only be performed when a plaintiff actually did something to either initiate or encourage the injury. If the defect is in the meter, power lines, poles or transformers and is untouched by the plaintiff, or if the negligent party who initiates the accident is unknown, the utility company would end up bearing the entire cost.
173. Although a thorough discussion of the impact of products liability insurance on the tort system is beyond the scope of this Comment, a few thoughts bear mentioning. When litigation costs and insurance premiums overtake profits, manufacturers will drop their products. The prevalence of mass torts, deep pocket liability, joint and several liability, and uncapped non-economic losses have skyrocketed insurance premiums. These high premiums have caused manufacturers to drop product lines rather than continue with such payouts. Ultimately, although the public suffers with higher prices and less product availability, the true cost of the product is exposed. Unfortunately, because insurance premiums are not individualized, companies that have never had a claim against them suffer similar rate hikes as those with multi-million dollar product liability suits. In considering extension of strict liability to utilities, the policy decisions assume even greater magnitude in light of insurance uncertainties. See generally Goldberg, Manufacturers Take Cover, 72 A.B.A. J., July 1, 1986, at 52-55. See supra note 146 for an example of a statutory answer to such questions.
Therefore, with moderate conceptual changes in the definitions of “product” and “stream of commerce,” strict liability could accommodate electrical transmission facilities. However, the analytical application of the doctrine must be examined according to its logical results to the legal profession, the utilities, and society itself. How would the extension of strict liability to transmission facilities affect loss spreading, risk distribution, plaintiffs’ legal burdens, safety, and people’s relationship with utilities—the above-mentioned criteria for any extension of the doctrine?

E. Problems and Results of Applying Strict Liability to Electrical Transmission Facilities

What would be the burdens and benefits of expanding strict liability to utility systems? One primary tenet of the doctrine is that the manufacturer and chain of distribution participants are in a better position to absorb the cost of injuries. They then pass the cost on to all users by factoring in the liability cost to the price of the product, alleviating the substantial monetary burden of injured unknowing plaintiffs. The added cost not only compensates victims but provides an incentive to reduce the possibility of accidents. In a balanced market, the manufacturer with more defects, and hence more liability cost, would need to charge a higher price. By keeping their liability to a minimum, competitors will charge a lower price, and garner a higher percentage of the market. In other words, those who seek to profit from a product should bear the cost associated with its production.

The twin goals of strict liability, compensation and deterrence, however, are best served not by singular systems of recovery (i.e., an insurance system could best compensate injured victims, but would provide no deterrent effect) but by the most efficient allocation of resources. Professor Calabresi sets out three components of accident costs: primary costs (number and severity of accidents); secondary costs (society’s costs of its failure to fully compensate victims); and tertiary costs (costs of administrating an accident system).
Since every purchase of every product is a decision among substitutes or alternatives, supply and demand analysis would reflect the true social cost of utility services. This cost would include compensation for medical treatment, wage loss, labor, materials and production elements. The activities which are more accident prone would experience a greater price rise probably resulting in less participation in those activities.

Because of the high social need and use of electricity, the above equation would probably result in increased prices and minimal decline of usage. One could argue that because of the higher price, and a possibility that the availability of electricity could decline (as opposed to its use), the long range impact would be to deprive those unable to pay for the increased cost of the product. This reduction would be concentrated on the poor. It is hard to say whether an adjustment of liability would have such an effect, however, as it would take the market some time to balance the cost/demand principles necessarily involved.

Obviously, this type of economic analysis applies whenever strict liability governs the sale of any product. The difference here is that electricity (as well as gas, water, and other utilities) is absolutely necessary to modern life and is not governed by the same economic choices made regarding automobiles, appliances, and other "pure" products. Courts may find that design defects in electrical systems could only be cured by insulating every existing power line, redesigning entire transmission systems or by moving all transmission lines underground. Such costs would be astronomical.

Applying strict liability to electric utilities could reduce the administrative costs forced by the use of the negligence system. Victims who prove negligence get only about fifty percent of their compensation from damage awards. Attorneys, courts and insurance companies typically

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178. Since electricity is such a necessary part of modern daily life, there probably would not be much decline in use. However, because the amount of recovery based on strict liability may not be much more than that based on negligence, the price may not rise as much either. For example, if the amount of recovery under strict liability was $100 million more per year, and there are 10 million users in the state, the yearly price increase would only be $10 per user.

179. Like most regressive systems, the poor are forced to pay a higher percentage of their earnings to obtain needed services. If the increase is not so exorbitant, perhaps the price would be worth it. Many poor people do not own homes nor, as tenants, do they have direct access to electrical transmission devices. Their only recourse may be to their landlord who will charge higher rents.

180. A free market can support an elastic price/demand ratio. Utilities are not free markets. People cannot make the same choices of what, when, and whether to buy electricity as they can with other products.

181. Comment, supra note 9, at 444; see also Franklin, Replacing the Negligence Lottery: Compensation and Selective Reimbursement, 53 Va. L. Rev. 774 (1967); Franklin, Chanin &
receive in total more money than the injured plaintiffs. Furthermore, because of the unpredictable nature of proving a negligence case, the pattern of awards can be arbitrary. Often it is the severely injured plaintiff who needs recovery most, yet who is forced to wait years for unassured compensation.

The negligence system is expensive. To reduce the number of factual questions (as would occur if strict liability were imposed) would lighten the amount of time and expense that juries, judges, counsel and witnesses incur. Additionally, because there would be less incentive for defendant companies to wait out the trial, settlements would be encouraged. Congestion would lighten and cases that did go to trial would be shorter and less complex. Applying strict liability would assist the injured plaintiff in quickly receiving much needed compensation.

However, the complexity and factual issues would only be lessened, not eliminated. It could also be argued that since there is a relatively small amount of plaintiffs who go to court in electrical liability cases, the actual savings would be minimal. In computing the monetary cost of extending strict liability to utility facilities, the questions arise—where would the line be drawn; which utilities would be covered? Gas, water and telephone companies would all assumedly be subject to the extended liability.

The public nature of electrical utilities raises additional problems when trying to apply strict liability to such enterprises. Initially, they are different entities than normal businesses that provide services or deliver products. Electric utilities are subject to strict rate and safety regulations. Their rates cannot respond to free market supply/demand analysis in the same fashion as other hybrid enterprises. Nor can any business with an inclination open up an electricity producing company. A business must apply to the Public Utilities Commission (PUC) for a certificate and pass a stringent test of whether public convenience and necessity require such a company.

The public function of utilities also creates a duty to continue to


183. By reducing the amount of time each trial would take, injured plaintiffs would receive their much needed recovery sooner. The same could be said for the impetus provided by strict liability for defendants to settle.

provide services after they have started. A company cannot shut down without proper procedures designed to ensure that the public will continue to be adequately served. Whether or not including certain residences for service delivery is profitable to the utility, it has a public duty to continue the delivery of the product:

As its name indicates, the term "public utility" implies a public use and service to the public; and indeed, the principal determinative characteristic of a public utility is that of service to, or readiness to serve, an indefinite public (or portion of the public as such) which has a legal right to demand and receive its services or commodities.

In this respect there is no difference between a privately owned utility and a publicly owned one. They both are under such a legal duty and are controlled by the same regulations.

Electric utilities are also required to obtain approval from the PUC whenever they propose rate adjustments. The approval is given only after a complete examination procedure which includes a public hearing. Given the attitude toward cost of living increases, it is common for the public to refuse to endorse rate increases. Public utilities are limited in the amount they may "reasonably" spend on upkeep and expansion. Utilities are likewise limited in the amount of profit they are entitled to make.

It seems that utilities will encounter many obstacles in trying to pass the cost of strict liability to the users of the product. However, given that the dollar amount could be minimal to each consumer, perhaps society would be willing to devise a risk spreading system to allow such increases.

The balance of power between legislatures and the courts must be strictly defined in areas of utility control. Utilities are statutorily created and legislatively controlled. Perhaps, an initial approach would be to change the PUC regulations regarding utility liability. The reason liability was imposed in Pierce v. Pacific Gas & Electric Co. was that, even though the court acknowledged that the PUC has the power, by rule, to

185. 64 AM. JUR. 2D Public Utilities §§ 1, 16 (1972).
186. Id. § 1.
187. CAL. PUB. UTIL. CODE § 454(c) (West Supp. 1986). "The commission shall permit individual residential public utility customers affected by a proposed rate increase to testify at any hearing on the proposed increase . . . ." Id.
188. Id. § 454(a).
189. Id. § 451. "All charges demanded or received by any public utility . . . for any product or commodity furnished . . . shall be just and reasonable." Id.
limit their liability, it had not done so.\textsuperscript{190} If findings warranted extending liability, either PUC regulations or the utility statutes could be amended. Courts must be careful in interpreting the laws of the state not to overstep their power by legislating. The legislative system of representative government, in expressing the will of the people, should be the body that can best satisfy the population’s needs in areas of business regulation.

A final impediment to the establishment of strict liability for electric utility enterprises is the danger of dual standards when municipal companies plead sovereign immunity. There have been no reported cases that allow the pleading of strict liability against the state or its municipalities. The California Tort Claims Act of 1963\textsuperscript{191} establishes no common law governmental tort liability “except as otherwise provided by statute.”\textsuperscript{192} Certain statutes provide for governmental liability.\textsuperscript{193} The statutes regulating public utilities do not.\textsuperscript{194}

Therefore, even if courts could impose strict liability on privately owned utilities, they could not impose such liability upon municipally owned enterprises. The problems are manifest. The two provide the exact same service/product, the rates and regulations governing both are the same, and the types of accidents and defects possible are identical. Yet, only privately owned enterprises could be subject to strict liability. Those injured by privately held utilities would have the lesser burden; those injured by publicly held ones would have the greater. Strict liabil-

\textsuperscript{190} Pierce v. Pacific Gas & Elec. Co., 166 Cal. App. 3d 68, 77-78, 212 Cal. Rptr. 283, 287-88 (1985). PG&E argued that a judgment in strict liability would contradict an order of the Public Utilities Commission (PUC), whose decisions were to be reviewable only by the California Supreme Court. \textit{Id.} (citing PUB. UTIL. CODE § 1759 (West 1975)). PG&E asserted that rule 31.1 of General Order No. 95 shielded the utility from liability. Rule 31.1 reads as follows:

\begin{quote}
Electrical supply and communication systems shall be of suitable design and construction for their intended use, regard being given to the conditions under which they are to be operated, and shall be maintained in a condition which will enable the furnishing of safe, proper and adequate service.

The owners and employees of such systems shall at all times exercise due care to reduce to a minimum the hazard of accidental injury to their own or fellow employees, to the public and other utilities due to the presence of overhead wires.
\end{quote}

\textit{Id.} at 77 n.2, 212 Cal. Rptr. at 287 n.2 (emphasis in original).

The court held that the rule imposed, rather than limited, a duty of care. Moreover, the court found the rule applicable to those factual situations where people come in contact with overhead wires. Where the defective electricity is actually received by the consumer at her home, the rule does not apply. \textit{Id.} at 78, 212 Cal. Rptr. at 287-88.

\textsuperscript{191} CAL. GOV’T CODE § 815 (West 1980).

\textsuperscript{192} \textit{Id.}; see also Datil v. City of Los Angeles, 263 Cal. App. 2d 655, 69 Cal. Rptr. 788 (1968).

\textsuperscript{193} See, e.g., CAL. VEH. CODE § 17001 (West 1971); CAL. PENAL CODE § 4900 (West 1982).

\textsuperscript{194} There is no liability unless expressed within the statute.
ity, indeed, the entire tort law, could not condone a double standard such as this. The distinction would be irrational and capricious. If the percentage of publicly owned utilities was minimal such that imposing strict liability was procedurally possible, perhaps there would be a chance that legislatures would amend the public utility law to provide for its imposition, but it is not very likely.

Even if courts prove reluctant to impose strict liability for injuries caused by defectively designed transmission equipment, might they impose liability for injuries caused by defective design or equipment on a consumer's private property? The argument in favor of this liability is that once the electricity comes onto a consumer's private property, the expectation of the consumer is that the voltage will be at a certain level and in a certain condition. In Kulhanjian v. Detroit Edison Co.,\textsuperscript{195} a boy was injured when he touched an uninsulated wire on the roof of a building where he was working. The court ruled that since the wire was attached to a pole on private property as opposed to public property, strict liability attached.\textsuperscript{196} The countervailing considerations remain the same however, and this argument ultimately only seeks to extend the "bright line" to plaintiff's property line, rather than the meter.

VI. CONCLUSION

There is continuous tension between the needs of manufacturing institutions in our society and the needs of the populace. Changing one automatically affects the other. To increase the legal vulnerability of electric companies is justified by the strong societal interests of safety, compensation and social evolution. Such changes would almost certainly lead to increased costs, but expense is no cogent reason to forestall necessary legal developments. Additionally, the legislature could be convinced that an in-depth study of the consequences of applying strict liability to utilities is necessary to protect the population.

However, until such analysis and weighing is done, courts should refrain from entering such virginal territory. It is the legislature's job to implement administrative procedures for such purposes. It is also the legislature's job to streamline the safety and rate structures. Finally, if it is decided that the complete insulation of bare wires or the underground placement of the transmission facilities is necessary, it is the legislature again who must act. If necessary, the legislature could redevise the sov-

\textsuperscript{196} Id. at 356, 251 N.W.2d at 584-85 (emphasis added).
ereign immunity laws and redraft the utility statutes, but until that is done, the courts should interpret the law as it stands.

A change in the conceptual definitions of “product,” “stream of commerce,” “service,” and “strict liability” would be necessary and these would probably be within the province of the judiciary. The many legislative changes necessary to evade the problems associated with extending strict liability to electric utility services would be radical enough.

Although the expansion of strict liability by courts is laudable and should be applied in every appropriate circumstance, electric utility liability does not seem to be one of the places. It was questioned earlier whether, because *Pierce v. Pacific Gas & Electric Co.*\(^{197}\) and *United Pacific Insurance Co. v. Southern California Edison Co.*\(^{198}\) were reconcilable, they were also consistent with present California strict liability law and its underpinnings? Until both the courts and legislature are ready to implement the comprehensive conceptual, legal and logical changes necessary to extend the doctrine of strict liability, the law should stand as it is.

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\(^{197}\) 166 Cal. App. 3d 68, 212 Cal. Rptr. 283 (1985).