



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Generating Good Will in a Subdivision Without Electricity

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Description

Are engineers obligated to use their expertise and skill to solve social and ethical problems?

Body

Part I

In the aftermath of Hurricane Georges, much of Puerto Rico was without electricity for several months while the government repaired damaged lines and infrastructure. The Authority of Electrical Energy restored power to some areas before others, leading many to question the priorities displayed. Several areas had to do without electricity for months. Many took matters into their own hands and bought generators for their houses.

The subdivision Tranquilisimo, situated on the eastern side of Puerto Rico, is still fairly new; most of the houses were built after 1995. Residents work in the Metro area at professional jobs. People know one another, smile and wave when they see

their neighbors on the street but are not really that close. It is probably for this reason that they were not concerned about the problem confronting the Morales family in the aftermath of Hurricane Georges.

Jorge and Marta Morales live in a modest house with their two children, Carlos and Maria. They moved into Tranquilisimo just two months before Georges; their modest two-bedroom house is their first. Both Jorge and Marta work in San Juan, and Marta's parents, who live nearby, help by taking care of the children when Jorge and Marta are at work. In setting up their household, they hardly gave a thought to buying a generator.

But their neighbors all had them. Luis Quinones and his family bought one several years ago and use it during the frequent, temporary power blackouts. The other neighbor, Alberto Sanchez, bought one just last year. After the hurricane, both used their generators twenty-four hours a day to keep their refrigerators and air conditioners running. The noise kept the Morales family awake at night; they could have closed their windows to shut out the noise but the heat would have made this insufferable. Jorge talked with both his neighbors but Luis and Alberto were intransigent; they regretted using their generators all the time but they couldn't let their food spoil; and their neighbors had generators so they had to close their windows and run their air conditioners all night. Both suggested that Jorge buy a generator of his own. But the Morales' house had sustained damage during the hurricane, so they had other priorities for their money. After several sleepless nights, the Morales family gave up on their neighbors and stayed with Marta's parents until electricity was restored to Tranquilismo.

Questions:

1. This case is based on a scenario presented by a student during a retreat workshop on ethical implications arising out of Hurricane Georges. What kind of obligations do families using generators have toward their neighbors? Should they be concerned about the impact of the noise on their neighbors? Should they offer to share electricity with neighbors who do not have generators? (Many families did this by running a cord from their generator to the house next door to allow their neighbors access to electricity. Other families offered neighbors a chance to store food in their refrigerators.)
2. Examine this scenario using Pritchard's concept of good works. Is sharing electricity with your neighbors an obligation? Is it an example of good works?

3. Discuss the idea of solidarity in relation to this case. Look at Feinberg or May to find examples of the conditions necessary for solidarity. Were these conditions satisfied in this case? Can solidarity serve as the basis for generating moral obligation? Or does it arise out of individual acts that go beyond obligation?
4. Should neighbors turn off their generators at night in consideration of their neighbors? Why or why not?

Part II

Juan Benevolencia, a mechanical engineering professor at a local university, also lives in Tranquilisimo. When he saw his friend, Jorge Morales, in town and asked how things were going, he got an earful. Jorge told him that his neighbors were so selfish that they had driven his family out of their house. Juan listened patiently but offered no more than an occasional sympathetic comment.

But the more he thought about it, the more he became aware that there might be another solution to the Morales' problem. Mufflers exist that could greatly reduce the noise produced by generators but they were expensive; most consumers were unwilling to pay extra to save their neighbors an inconvenience. Still not much research had been done toward developing a cheaper alternative. Juan would have liked to do more research in this area but he had a full schedule with teaching and private consulting.

Questions:

1. Develop this case into an example of goods works using Pritchard's model? What could Juan do in this context?
2. Think of other ways that engineers can use their expertise and skill to solve social and ethical problems.
3. What are different ways in which engineers can hold paramount the health, safety, and welfare of the public in their practice? What is the public?

Notes

(Based on a scenario presented during the 1998 Ethics Retreat.)

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