

Energy Industry Roundtable - Developing a Cradle to the Grave Model for Various Energy Generation Systems

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Abstract. In order to make sound decisions regarding the appropriate mix of energy systems, we need a model that reflects all of the important parameters for each system beginning from the creation of the system until the system is shut down and decommissioned. Clearly all the nations of the world need to develop energy policies so that we can choose the best systems for the generation of energy in all its forms. In order to do this we need models that are detailed enough to be able to understand the impact of each energy system on the environment as well as to be able to see the true costs over the entire lifetime of those systems including the costs associated with decommissioning those systems. The purpose of this roundtable is to begin the process of identifying the primary elements to include in the system model. Obviously we need to understand the environmental impact of creating the various physical components that will be used to generate the energy as well as the environmental impact of operating those systems. Examples include the environmental impact of creating solar energy generating systems and the environmental impact of creating a coal fired energy generating system. Additionally we need to understand the costs of creating the systems, the costs of running the systems, and the costs of decommissioning the systems.