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eUtah: A Renewable Energy Roadmap to Move Utah in a New Direction A synopsis of HEAL Utah's renewable energy project

With the threat of nuclear power development, an expanding nuclear waste company with record profits and global ambitions, and a state energy policy in need of leadership, HEAL has stepped in to promote a 100% renewable energy plan for the state of Utah. We believe there is a better way to develop our energy and economic resources than relying on nuclear and coal-based fuels; and sound science and concrete policy recommendations should be established to point the way forward.

Our resulting campaign, eUtah: A Renewable Energy Roadmap for Utah, aims to thoroughly assess the feasibility of Utah moving to a 100% renewable energy grid. Our goal is to promote more than a theoretical paradigm shift in the way we produce electricity—which it certainly will involve—but to unite scientists, policy makers, regulators, and key industry stakeholders behind this movement away from centralized, coal- and nuclear-powered electricity production and towards clean, renewable, domestically-produced energy.

HEAL Utah is not alone in championing this work. Dr. Arjun Makhijani, president and founder of the Institute for Energy and Environmental Research (IEER) in D.C., published a landmark study in the fall of 2007 showing how a 100% renewable energy system can be established for the United States as a whole in the next 30 to 50 years. Makhijani's book, Carbon-Free and Nuclear-Free: A Roadmap for U.S. Energy Policy, thoroughly examines how, like the title suggests, we can eliminate both carbon and nuclear from our energy system while maintaining the American standard of living.

WHY UTAH?

HEAL Utah has moved forward to make Utah the first state to adapt Makhijani's nationwide analysis on a practical level. To make the rubber hit the road on changing electricity policy, analysis and activism needs to occur at the state-level where Integrated Resource Plans (the plans developed by utilities for future energy generation) are created and regional electricity

grid decisions are made. In order to prove to state policy-makers and to Utah's primary utility, PacifiCorp, that renewable energy can provide a safe, reliable, and cost-effective, fuel-supply, we need hard numbers.

Furthermore, many rural areas of Utah also rely on coal and carbon-emitting energy production for their economic survival. In a world where carbon – and therefore, their economies – will most likely be constrained, these communities are threatened with major disruption or depression. We believe strongly that, instead of "drilling here, drilling now" for oil shale or developing tar sands, we must develop a plan for these areas to transition toward clean energy economies. Renewable energy production and manufacturing is not only a smart move environmentally; it can potentially provide economic security and stability in uncertain times.

Finally, developing a Renewable Energy Roadmap for Utah is strategic because it has the potential for a larger domino effect. If our efforts are successful, our vision is to influence not just Utah's electrical grid, but PacifiCorp's entire service region, which includes Wyoming, Oregon, Washington, Idaho and part of California. We are consciously crafting our study to lay the groundwork for future analysis of converting the utility's entire service region to renewable energy.

Goal: Create a workable blueprint for transitioning our electricity grid away from greenhouse gas emitting fossil fuels and toward an energy portfolio powered 100% by renewable energy.

<u>Content:</u> Develop sound economic and technical analyses to demonstrate how efficiency measures and new ways of integrating intermittent, baseload, and dispatchable renewable resources can reliably meet Utah's electricity demands in the coming decades.

Through this analysis, the eUtah project will:

- ❖ Use the eUtah study findings to promote increased renewable energy development in PacifiCorp's Integrated Resource Plan (IRP).
- Examine the question: "What is the achievable potential for electrical energy savings in Utah from efficiency measures that can be implemented with current technologies and in a costeffective manner?"
- Assess the best policy vehicles for implementing the findings of the energy efficiency analysis. These may include, increased energy efficiency standards for new and existing buildings; a sector-wide efficiency mandate by a certain year; and/or specific micro-policies, such as an efficiency standard per square foot for new buildings.
- Assess the potential for transitioning Utah's coal-dependent communities to renewable sector industries.

<u>Approach:</u> Involve key stakeholders to ensure that our work does not remain an ivory tower activity, but has support from the players who are tangibly engaged in formulating energy policy. Our research team includes researchers from BYU and Utah State, and our advisory board members come from key energy, regulatory, political, and financial fields.