Designing State Programs to Support Industrial Electrification

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ANDREW HOFFMEISTER, FIKAYO OMOTESHO

State energy offices (SEOs) are uniquely positioned to shape market conditions, funding pathways, and policy environments that support industrial electrification in their states. This fact sheet outlines lessons learned and practical strategies for SEOs to accelerate industrial heat pump (IHP) deployment and achieve broader electrification goals. The following recommendations are drawn from our interviews with experienced program administrators and implementers. For additional details and context, please view this brief.

Create policies to accelerate market transformation

- Create regional and sectoral electrification roadmaps to guide investment and cluster-based outreach.
- Use sector-specific decarbonization targets to organize funding and attract market interest.
- Align program design across agencies and coordinate with utilities to leverage complementary funding and goals.
- Coordinate with air quality agencies to provide clarity to industrial companies.
- Fund demonstration projects with rigorous measurement and verification to build confidence in IHPs.
- Support recovery of waste heat and other efficiency measures as complementary decarbonization strategies.

Provide project funding and support design efforts

- Allow and encourage fund stacking with federal grants, utility rebates, and tax credits.
- Make energy-as-a-service models eligible for funding to broaden access.
- Incentivize early-stage feasibility assessments and systems integration studies.

Optimize grid and load planning

- Collaborate with utilities to identify infrastructure constraints (e.g., transformer capacity) and leverage load forecasting.
- Plan proactively for increased industrial load, including substation and transmission upgrades by identifying industrial clusters, and identifying locations where grid capacity upgrades are already planned or underway.
- Promote co-installation of renewables and storage to mitigate demand charges and improve reliability.

Prioritize sector-specific support

- Collaborate with industry associations and certification bodies to help streamline electric technology adoption (e.g., with the Food and Drug Administration or National Science Foundation to ensure equipment is food safe for food and beverage subsectors).
- Target immediately available applications like recovering waste heat from ventilation, condensing towers, and/or wastewater. For more details on early opportunity sectors, see this brief.
- Focus on partial electrification projects with high-efficiency gains and scalable opportunities.

To unlock the full potential of industrial electrification, SEOs should also work in close partnership with utilities to align funding, planning, and outreach efforts. Utilities bring deep knowledge of local grid constraints and customer relationships, while SEOs can shape long-term strategy, direct resources, and coordinate across agencies. Through this collaboration, states can ensure that industrial facilities receive timely infrastructure upgrades, flexible financial support, and access to proven technologies like industrial heat pumps. Incorporating lessons—such as minimizing downtime, addressing cost barriers, and prioritizing high-impact applications—will help SEOs design programs that are responsive to industry needs, economically competitive, and scalable across regions and sectors.