



ENERGIZING FINANCE
RESEARCH SERIES



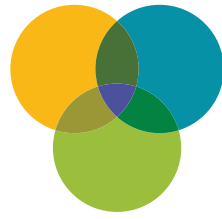
Dalberg



**ENERGIZING FINANCE:
TAKING THE PULSE 2021**

POLICY BRIEF

VIETNAM



ENERGIZING FINANCE RESEARCH SERIES

The Energizing Finance research series consists of in-depth primary research and analysis by Sustainable Energy for All (SEforALL) and partners that examines supply and demand for finance across two key areas of energy access: electricity and clean cooking.

Energizing Finance: Taking the Pulse 2021 estimates the finance needs of enterprises and consumers to reach universal energy access by 2030 in three countries: Ghana, Mozambique and Vietnam.

Taking the Pulse shines a light on both the volume and type of capital - debt, equity, grants and affordability gap financing – challenges to achieving universal access and recommendations on actions required to achieve SDG7. This Policy Brief is based on Taking the Pulse analysis for Vietnam.

Based on Vietnam’s historical trends and business-as-usual programmes and financing, **5.9-13.7 million households will not have access to clean cooking by 2030.**



2030 households without access

Number of households Percent of households



Tier 1 electricity access
equivalent to 3-4 lights, phone charging and powering a radio



Tier 2/3 clean cooking access
improved cookstoves

5.9M



Tier 4 clean cooking access
“clean” fuels - LPG, ethanol, electric cooking

13.7M



Universal energy access can yield significant economic, health and emissions benefits



Avoid Deforestation



Women Empowerment



Carbon Emissions Prevented



Improved Health; Reduced Co-Morbidities and Deaths



New Economic Opportunities



Time Savings

Achieving universal access to clean cooking in Vietnam

Vietnam has seen significant growth in access to clean cooking, and overall access is high. About 51 percent of the population currently cook with clean fuels (Tier 4) and 79 percent are using Tier 2/Tier 3 improved cookstoves (it should be noted that households with Tier 4 access also counted as having access to Tier 2/Tier 3).¹ Growth has been primarily driven by LPG expansion, while the market for improved cookstoves remains small, primarily focused on rural areas where access to LPG is limited.

Despite ongoing efforts, at the current pace, Vietnam will fall short of both Tier 4, and Tier 2/Tier 3 universal access to clean cooking by 2030, with nearly 22 percent of the population continuing to rely on traditional biomass stoves for cooking (Tier 0-1).

Universal access to clean cooking fuels and technologies (Tier 4) can be achieved through several “clean” fuels, including LPG, the focus of the government’s strategy to date, ethanol and electric cooking. These fuels have significantly lower emissions and more positive health benefits than improved cookstoves.

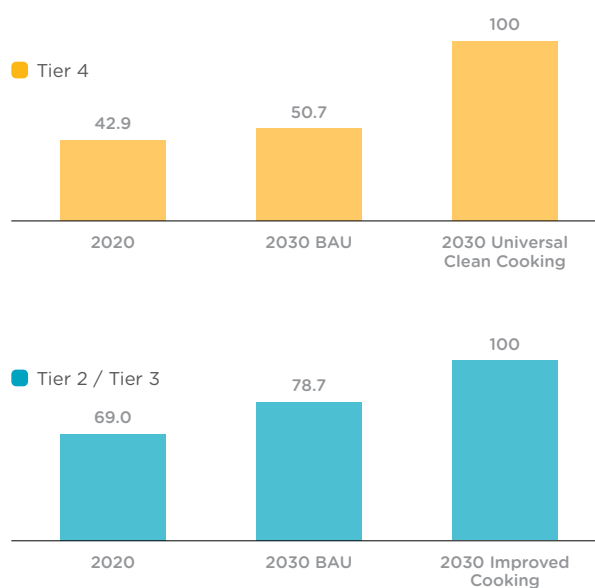
Achieving 100 percent access to Tier 4 clean cooking requires USD 19-22 billion and varies based on the type of fuel. This is primarily driven by the cost of fuel and subsidies to enable household affordability for fuel and stoves. Other cost drivers include some infrastructure investments needed to bring clean fuels (LPG) to new and/or rural areas, including the development of new bottling plants, storage, cylinder upgrades, and behavioural change campaigns. This cost does not account for any additional investment for production or importation of LPG.

Accelerating universal household access to Tier 2/Tier 3 improved cookstoves (ICS) that use wood or charcoal as fuel, but have significantly lower emissions compared to traditional cookstoves, requires USD 183 million in new

funding. About USD 40 million (22 percent) is needed to close the household affordability gap, and USD 143 million (78 percent) would address the finance needs of the private sector to manufacture and distribute these improved stoves. Climate finance could play an important role in financing, recognizing the emission savings through ICS usage.

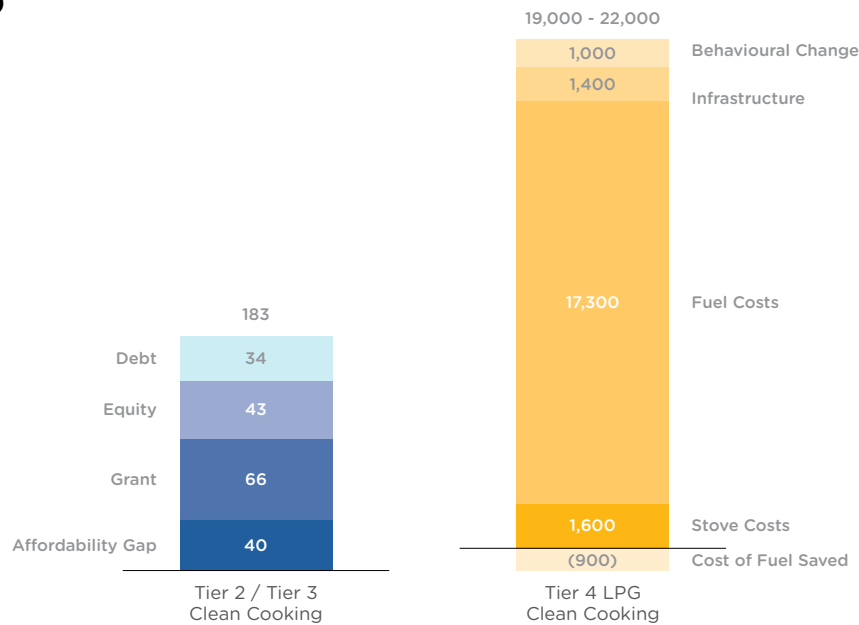
Many ICS companies are small, have no access to lower cost international finance and limited local commercial funding. As a result, grants will remain a core source of funding for many ICS manufacturers and distributors until 2030 to support their expansion into last-mile areas.

FIGURE 1
Clean cooking access 2020-2030e (percent of population)



¹ For clean cooking, this report utilizes the MTF framework to define access Tier 2/Tier 3 levels as access to improved cookstoves through industrially manufactured improved cookstoves; and access to Tier 4 levels as access to clean fuels and technology/modern energy cooking services through LPG, ethanol, and electricity. It should be noted that households with Tier 4 access also have Tier 2/Tier 3.

FIGURE 2
Vietnam cost of universal access
(USD millions)



Key challenges for universal clean cooking access

Primary challenges for Vietnam’s progress towards universal energy access include:

Insufficient ICS private sector finance and access to carbon finance: Local ICS enterprises tend to be pre-commercial and face all challenges small- and medium-sized enterprises face in developed markets as well, including access to finance and equity, in particular, to finance growth; this is complicated by the fact that they are energy companies in a maturing industry less understood by financing institutions.

Few private ICS players. With the end of donor programmes supporting the ICS market, few private sector players were able to maintain their activities without grant finance. As a result, there are few players focused on ICS distribution.

Last-mile delivery in the hardest to reach areas.

The households with affordability challenges are also the ones living in harder to reach areas. This carries additional distribution costs for clean cooking and SHS distributors, resulting in low access to clean cooking and electricity solutions in these areas, particularly for ethnic minorities.

Customer affordability. It is estimated that 5 percent of the population is unable to afford a USD 35 improved cookstove on a cash basis. This represents approximately 1.3 million households. Tier 4 access is also unaffordable for some households.

VIETNAM RECOMMENDATIONS

Key Recommendations

Affordability Gap



- Consider USD 40 million in demand-side finance to address affordability gap up to 2030
- Expand pay-as-you-go and consumer finance to improve affordability

Financial Need



- Explore result-based mechanisms to incentivize private sector expansion in harder to reach areas
- Commit to USD 143 million in private sector finance for Tier 2/Tier 3 access up to 2030

Private Sector Support



- Incorporate into national clean cooking strategy a pathway for “clean” fuels beyond LPG and support ICS sector growth with clear guidelines
- Create a national carbon credit scheme to increase access to carbon finance
- Support local lending to the private sector through guarantees, first-loss schemes, etc.

Gender Balance



- Expand research and development for more efficient and gender specific, human-centred design

Increased Coordination



- Improve coordination between electricity, clean cooking and climate efforts to accelerate growth and leverage the right mix of capital to close energy access gaps



Investors



Government



Development Partners

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Vienna (Headquarters)

Andromeda Tower, 15th Floor
Donau City Strasse 6
1220, Vienna, Austria
Telephone: +43 676 846 727 200

Washington, DC

1750 Pennsylvania Ave. NW
Washington, DC 20006 USA
Telephone: +1 202 390 0078

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