



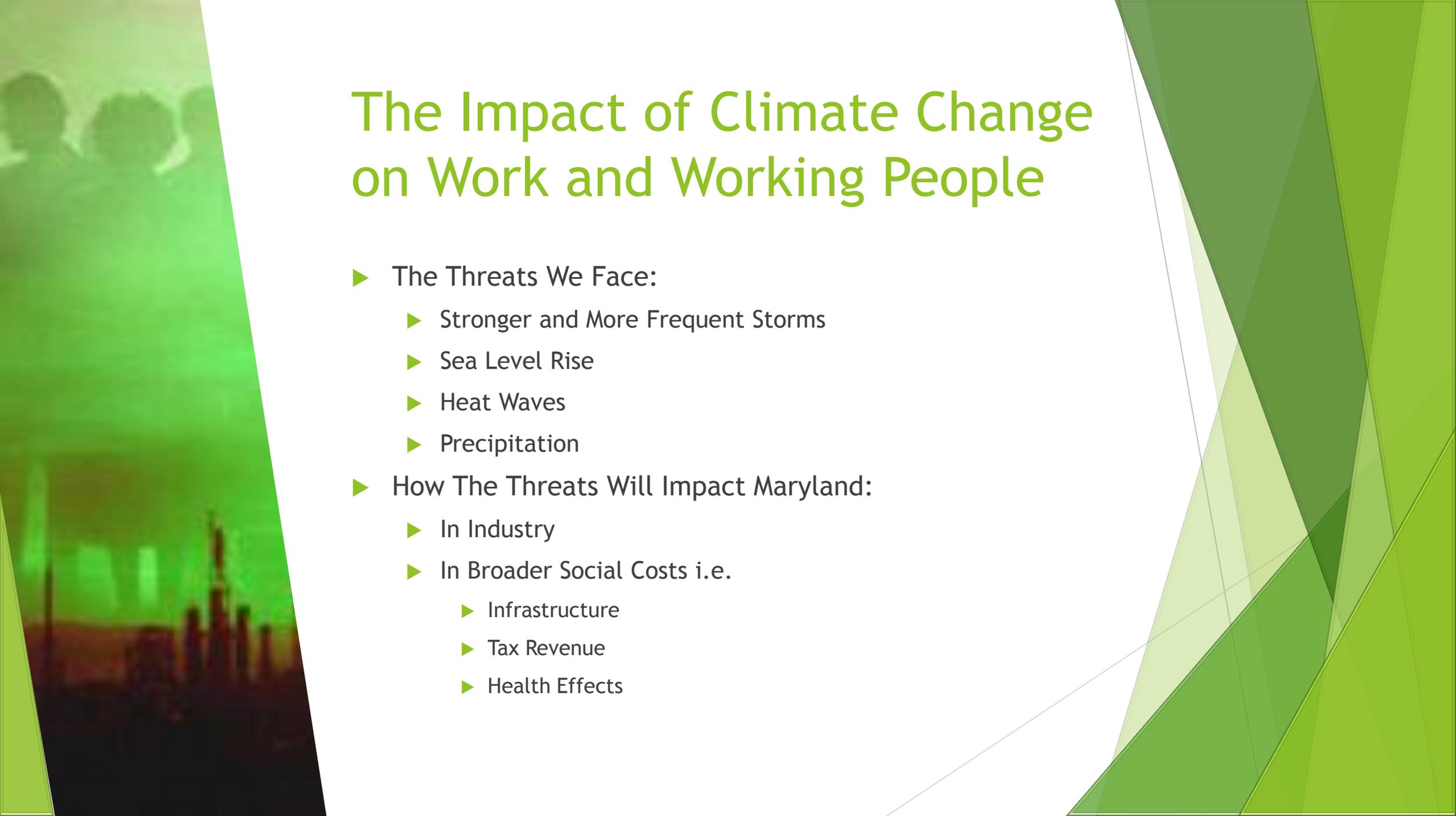
# Labor Network for Sustainability

[labor4sustainability.org](http://labor4sustainability.org)



# Making a Living on a Living Planet

Three reports on how to make  
and shape the coming energy  
transition



# The Impact of Climate Change on Work and Working People

- ▶ The Threats We Face:
  - ▶ Stronger and More Frequent Storms
  - ▶ Sea Level Rise
  - ▶ Heat Waves
  - ▶ Precipitation
- ▶ How The Threats Will Impact Maryland:
  - ▶ In Industry
  - ▶ In Broader Social Costs i.e.
    - ▶ Infrastructure
    - ▶ Tax Revenue
    - ▶ Health Effects

# Effects on Industry

## Major Sectors Impacted

- ▶ Tourism and recreation
- ▶ Public sector workers
- ▶ Health care workers
- ▶ Commercial Fishing
- ▶ Construction
- ▶ Agricultural workers
- ▶ Transportation



# Broader Social Costs

## ▶ Infrastructure

- ▶ Higher energy demand in the summer will require increased capacity, Extreme weather will affect supply chains, damage businesses and require more emergency services

## ▶ Transportation

- ▶ longer commutes and shipment delays due to extreme weather will have a macro effect on MD's economy

## ▶ Tax Revenues

- ▶ The combined economic consequences of climate change will result in reduced tax revenues

## ▶ Public Costs

- ▶ Efforts to adapt to the changing climate will be costly. Dealing with emergencies and community restoration projects will impact Federal, State and Local budgets

## ▶ Health Effects

- ▶ Outside workers will be at an increased risk for heat stress. A study of East Coast cities discovered that heat-related mortality in Baltimore increased more than 6.5 percent for each 1.8 percent F increase in temperature - the highest of any city studied.

# What Can Be Done?

And How Can It Be Done To Make Everyone In Maryland Better Off?

# Initiatives Underway

- ▶ MD's burgeoning market for offshore wind offers even more job opportunities.
- ▶ The current Renewable Portfolio Standard (which requires electrical utilities to get a certain percentage of their energy from renewable sources like solar, wind, and biomass) set to reduce greenhouse gasses by 25% by 2020
  - ▶ Currently work is being done to raise the RPS to 50% by 2030, meaning half of Maryland's energy will come from renewables



# Sustainability

About more than being  
green

# Sustaining Employment and Communities

## Necessary Protections

- ▶ Domestic content requirements
- ▶ Buy American provisions
- ▶ Project labor agreements

## What Makes the Necessary Possible

- ▶ Right to Organize
- ▶ Collective Bargaining

# Maryland's Clean Energy Future

Beyond What's Being Done  
To What Could Be



## What a Clean Energy Future Looks Like

- ▶ Reduced net emission of greenhouse gases in Maryland by 80 percent below the 2006 level by 2050.
- ▶ A climate protection strategy that will produce an estimated 10,000 more jobs per year over business as usual projections through 2050.
- ▶ Use of the burgeoning state and national demand for clean energy to create good, stable jobs in a growing climate protection sector: manufacturing jobs, jobs for those who have been marginalized in the current labor market, and jobs for skilled union workers in the construction trades

|  | 2013 Employment  | New Jobs in Clean Energy Future |                       |
|--|------------------|---------------------------------|-----------------------|
|  |                  | Annual Average                  | As Percentage of 2013 |
| <b>Total, All Industries</b>                   | <b>3,527,847</b> | <b>10,028</b>                   | <b>0.3%</b>           |
| <b>Above Average Growth</b>                    |                  |                                 |                       |
| Construction                                   | 222,915          | 5,312                           | 2.4%                  |
| Manufacturing                                  | 114,400          | 954                             | 0.8%                  |
| Wholesale Trade                                | 94,489           | 585                             | 0.6%                  |
| Management of Companies & Enterprises          | 27,859           | 156                             | 0.6%                  |
| <b>Below Average Growth</b>                    |                  |                                 |                       |
| Other Services (except Public Administration)  | 213,882          | 582                             | 0.27%                 |
| Finance & Insurance                            | 163,653          | 411                             | 0.25%                 |
| Agriculture, Forestry, Fishing & Hunting       | 23,755           | 53                              | 0.2%                  |
| Information                                    | 52,670           | 111                             | 0.2%                  |
| Health Care & Social Assistance                | 422,882          | 819                             | 0.2%                  |
| Arts, Entertainment & Recreation               | 87,223           | 136                             | 0.2%                  |
| Real Estate, Rental & Leasing                  | 167,428          | 239                             | 0.1%                  |
| Educational Services                           | 98,461           | 134                             | 0.1%                  |
| Retail Trade                                   | 345,446          | 376                             | 0.1%                  |
| Accommodation & Food Services                  | 233,615          | 170                             | 0.1%                  |
| Administrative, Support & Waste Management     | 277,945          | 135                             | 0.1%                  |
| Transportation & Warehousing                   | 102,027          | 55                              | 0.1%                  |
| Professional, Scientific, & Technical Services | 346,463          | 160                             | 0.05%                 |
| Public Administration                          | 566,715          | 76                              | 0.01%                 |
| <b>Job Losses</b>                              |                  |                                 |                       |
| Utilities                                      | 10,794           | (88)                            | -0.8%                 |
| Mining & Extraction                            | 5,225            | (347)                           | -6.6%                 |

# Employment in the Clean Energy Future

- ▶ Almost two-thirds of the new jobs are in construction and manufacturing.
- ▶ Half of those new jobs are in construction, both for installation of energy efficiency measures and for construction of new renewable energy facilities.
- ▶ A majority of the new manufacturing jobs are in three sectors: fabricated metal products, machinery, and electrical equipment and appliances.

# How Do We Build The Future Together?

## Clean Energy Technologies

- ▶ Maryland's energy system will be transformed by renewable sources by mid-century
- ▶ New demand for an electrified/fuel efficient transportation fleet
- ▶ Investment in energy efficiency
- ▶ Restructuring of Maryland's waste stream

## Employment in the Clean Energy Future

- ▶ Creation of an annual 10,000 more jobs in Maryland than business as usual
- ▶ Half of the state's new jobs will be in construction
- ▶ Manufacturing will see an increase in employment as utilities and industry adapt
- ▶ Retrofitting and replacement of existing infrastructure systems will provide ample employment

# Are These the Jobs We Need?

- ▶ The only economic sectors projected to have net job losses under the Clean Energy Future are utilities, and mining and extraction (including gas drilling)
- ▶ This amounts to a loss in largely union jobs and the higher wages, better benefits and grievance procedures that go along with them.
- ▶ While the growth in renewable jobs will be impressive, it remains to be seen whether they can replace and improve what was lost.



# Working Toward a Common Vision

With a unified vision of the  
future, a stronger Maryland is  
possible

***ieer***

INSTITUTE FOR ENERGY AND  
ENVIRONMENTAL RESEARCH



LABOR NETWORK  
FOR SUSTAINABILITY

# Beyond a Band-Aid

The cloud of climate change is not all  
silver lining

# There will be a solution.

The question is whether workers will be considered.

## The New System is Possible

- ▶ An economical transition to an energy system that is nearly emissions-free is possible. The transition will provide enormous benefits, both in terms of climate protection and to workers and communities. The new energy system will be cleaner, and more resilient. Air pollution will decline. Solar and wind energy require essentially no water at a time when stress on water resources is becoming an ever larger economic and ecological issue

## It Doesn't Have to Be Just

- ▶ Notwithstanding these benefits, significant issues of justice will be raised by the transition to a clean energy future. Even though large numbers of new jobs will be created, there is no guarantee that workers and communities which lose existing jobs will have them replaced by new ones. Indeed, unless proactive policies are in place, many current workers in fossil fuel industries will become unemployed. The communities they live in will be disrupted by loss of tax revenues.

# Just Transition: Necessary Components

- ▶ Major public and private investment under long-term sustainable industrial policies to create local jobs and workplaces.
- ▶ Social protections, including social insurance, income maintenance, job placement, and secure access to health, energy, water, and sanitation.
- ▶ Training and education for new careers for those affected.
- ▶ Wide consultation among stakeholders.
- ▶ Attention paid to every region and community at risk to provide an alternative to a “free-market adaptation” that will only lead to suffering and opposition to climate measures.
- ▶ Protection for the economic life of communities

# Proposals for Dealing with the Downsides of Transition

- ▶ A community and worker protection fund (CWP Fund). The fund would collect money in advance to replace taxes and fees paid by fossil fuel facilities and to invest in good jobs in affected communities.
- ▶ Advance investment in job creation. The CWP Fund, in cooperation with other private and public sources, would make targeted investments in fossil fuel energy communities designed to create jobs before or at the pace that fossil fuel jobs are declining. Examples would include:
  - ▶ Exporting renewable energy
  - ▶ HVAC conversion
  - ▶ Decommissioning facilities
  - ▶ Economic diversification

# Paying for the Transition

## Many Streams of Revenue are Possible

- ▶ A carbon fee or tax for creating jobs prospectively in communities we know will be affected adversely if we keep fossil fuels in the ground.
- ▶ Eliminating fossil fuel subsidies and tax breaks.
- ▶ Decommissioning funds.
- ▶ Using the Community and Worker Protection Fund to leverage other investments.
- ▶ A possible charge on electricity supply after renewables become 50 or 60 percent of the energy system.
- ▶ General funds from income taxes.

# Revenue from Carbon

## Carbon Tax/Fee

- ▶ A carbon tax to make renewables competitive relative to fossil fuels is not needed; A more modest tax could be used for a just transition and for an affordable energy program to protect low-income households.
- ▶ As investments are made they would generate jobs; therefore, the need for additional revenues would decline over time. So in contrast to carbon taxes proposed for stimulating a fossil fuel phase out, the carbon tax for the CWP Fund can be reduced; it can go to zero, as fossil fuels are phased out. This is because the CWP Fund would be used specifically to create jobs for workers in the communities affected by that phase-out before or concomitantly with the end of fossil fuel production.

## Ending Subsidies

- ▶ Ending governmental subsidies and tax breaks at the national level to the coal, oil, and gas industries would generate about \$20 billion per year, initially.

# Funding Through Funds

## Decommissioning funds

- ▶ Decommissioning funds would be available in many areas (nuclear plants, many coal plants, and some fossil fuel production areas). The amounts over time could be very substantial. The development of a just transition plan should include careful consideration of decommissioning funds and related jobs.

## Community and Worker Protection Fund

- ▶ Some of the funds could be used to seed a Green Bank in affected communities. It could provide assistance for converting fossil fuel heating to efficient electric systems on a large scale and leverage that to bring manufacturing to fossil-fuel-dependent communities. Creating targets for exports of renewable electricity could also leverage manufacturing investment in solar- and wind-energy-related manufacturing.