



Renewable Energy Finance and Investment Panel: Iowa

Alternate Energy Revolving Loan Program (AERLP)

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**Minnesota Renewable Energy Roundtable
Maple Grove, MN
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Who is the Iowa Energy Center?

■ A Little History

- Created by the 1990 Iowa Energy Efficiency Act
- Funded by surcharge on intra-state electric & gas sales
 - 0.085% of gross revenues
 - ~ \$4 million annual budget
- Administered by Iowa State University

■ Mission is to

- sponsor and conduct research, demonstration & information dissemination
 - Energy efficiency
 - Alternate energy systems
- Provide Iowans with reliable, objective information on energy and efficiency options

■ Administer the Alternate Energy Revolving Loan Program (AERLP)

Iowa Renewable Energy Incentives

■ Iowa Renewable Energy Production Tax Credit

- Iowa Code 476C - \$0.015/kWh, \$4.50/MMBtu for heating or biogas, \$1.44/thousand cf for hydrogen used onsite or purchased from eligible RE facility (63 MW for non-wind; 363 MW for wind)
- Iowa Code 476B - \$0.10/kWh for wind energy (< 50 MW)

■ Iowa Solar Energy Income Tax Credit

- 50% of federal income tax credit (15% of eligible costs)
- \$5,000 limit for households, \$20,000 limit for businesses
- Annual State allocation (\$5 million for FY16)
- Phased out to match Federal schedule in 2022

■ Accelerated Depreciation for business

■ Renewable Energy Equipment Exemption, Sales Tax

■ Property Tax Exemption

■ Alternate Energy Revolving Loan Program

■ Database of State Incentives for Renewables & Efficiency

ALTERNATE ENERGY REVOLVING LOAN PROGRAM (AERLP)

Encouraging the Development of Alternate Energy Production Facilities in Iowa



AERLP Program Background

■ Created by Iowa legislature in May 1996

- 1997 Iowa Code, Section 476.46
- Amendment to the 1990 Iowa Energy Efficiency Act

■ Funded via

- Iowa's investor-owned utilities through 3-year special assessment on gross intrastate revenues
- 0.085% of gross electric and gas intrastate operating revenues during 1995-1997
- \$5.9 million base funding

■ Legislatively amended

- in 2002 to permit up to half of the accrued interest income to be spent for program administration & promotion
- in 2008 to increase the maximum loan amount to \$1 million
- in 2009 to allow municipal utilities and REC eligibility (at \$500,000 loan limit)
- in 2009 to supplement base funding by \$10 million (\$5 million in 2009 & 2010)

AERLP Program Highlights

■ AERLP Funds

- up to 50% of the financed project cost
- \$1 million maximum, (L)
- \$500,000 for Muni's & REC's (L)
- 0% interest rate (L)
- 20 year maximum term (L)
- negotiated repayment schedule
- repayments revolved back into fund for further loans

■ Lender Funds

- matching funds not less than AERLP
- market rate interest rate
- loan term not less than AERLP term
- repayment collection & distribution to AERLP

Program Eligibility

- **All individuals and groups who want to build alternate energy production facilities in Iowa**

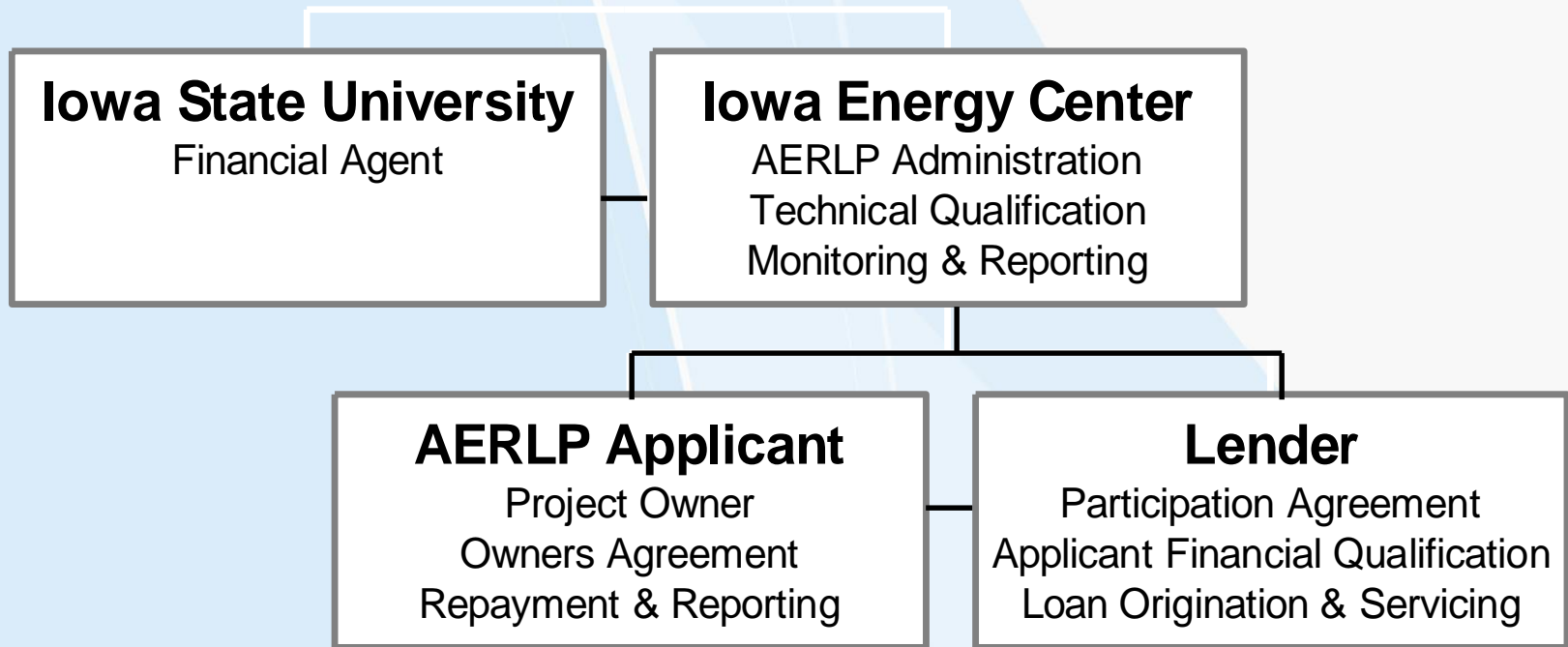
AERLP Eligible Technologies (Iowa Code 476.42)

- **Small Hydroelectric**
- **Wind Turbine**
- **Solar**
 - Photovoltaic
 - Hot water
- **Biomass**
 - Waste or refuse to fuels
 - Agricultural crops to fuels
 - Biomass feedstocks to fuels
 - Landfill gas recovery
 - Woodburning facility
- **Ineligible Technologies**
 - Passive solar
 - Geothermal systems (ie. ground source heat pumps)
 - Heat pumps

AERLP Description

- **Revolving fund structure**
- **Competitive application process**
- **Funds are leveraged against matching funds**
- **Managed partnership with the banking community**
 - **Technical Qualification by the IEC**
 - **Financial Qualification by the lender**
 - **Lender originates and services a single AERLP loan**
 - **Participation Agreement**
- **Owner reporting requirements**
 - **Owners Agreement**

AERLP Organization



Technical Qualification

■ Project Eligibility

- Eligible technology
- Project location

■ Technical Design

- System design of components
- Estimated energy generation
- Costs
- Benefits

■ Ranking Criteria

- Requested loan term (shortest term ranked highest)
- Simple payback calculation w/o incentives (lowest payback ranked highest)

■ Awards based on ranking until funds exhausted

Participation Agreement

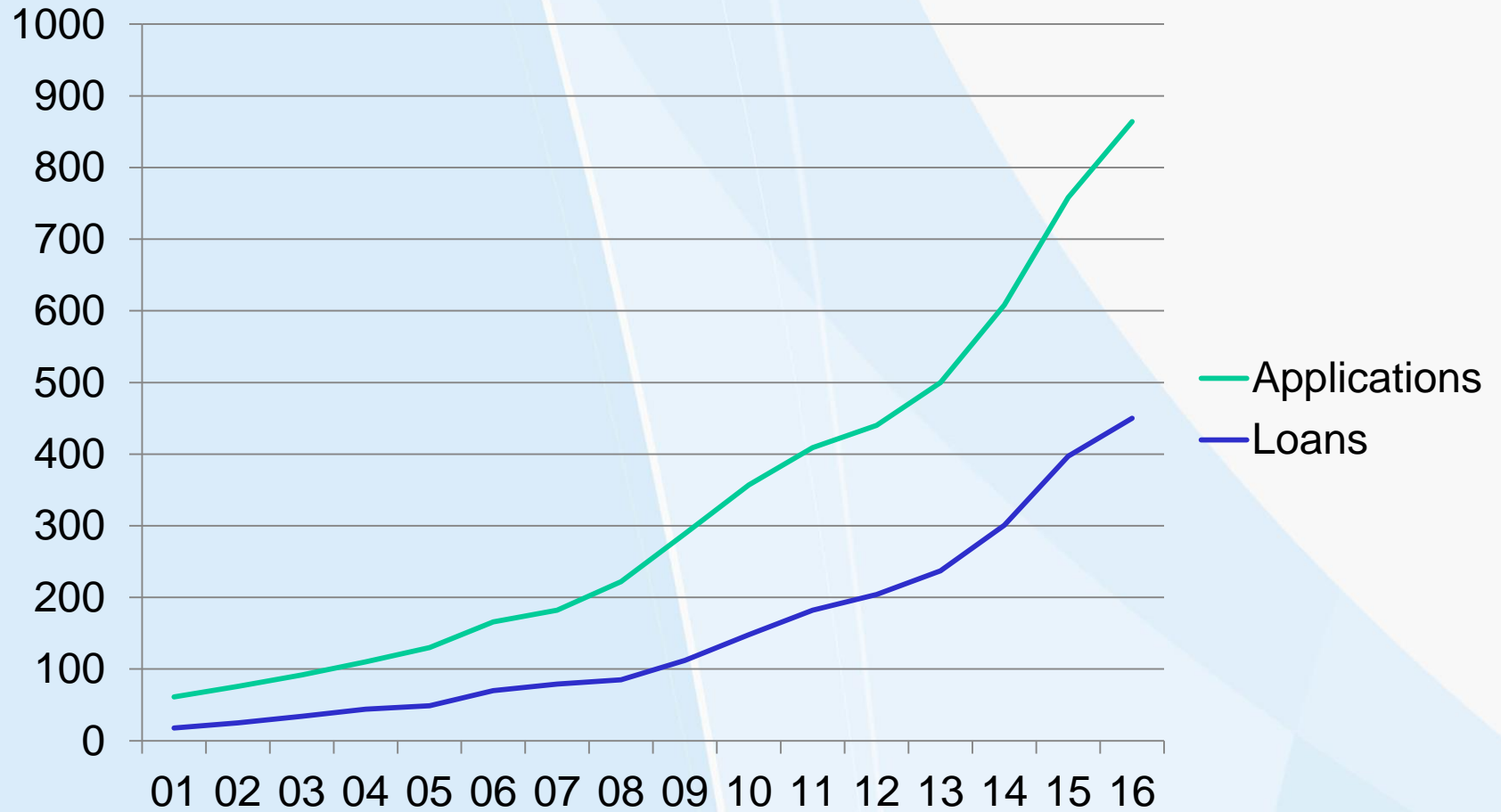
- **Contracting document between the Energy Center and the lender**
- **Single promissory note**
 - **Combines interest bearing and non-interest bearing instruments**
- **Defines terms and conditions**
 - **Repayment schedule**
 - **Collateral**
 - **Default position**

AERLP Owner Agreement

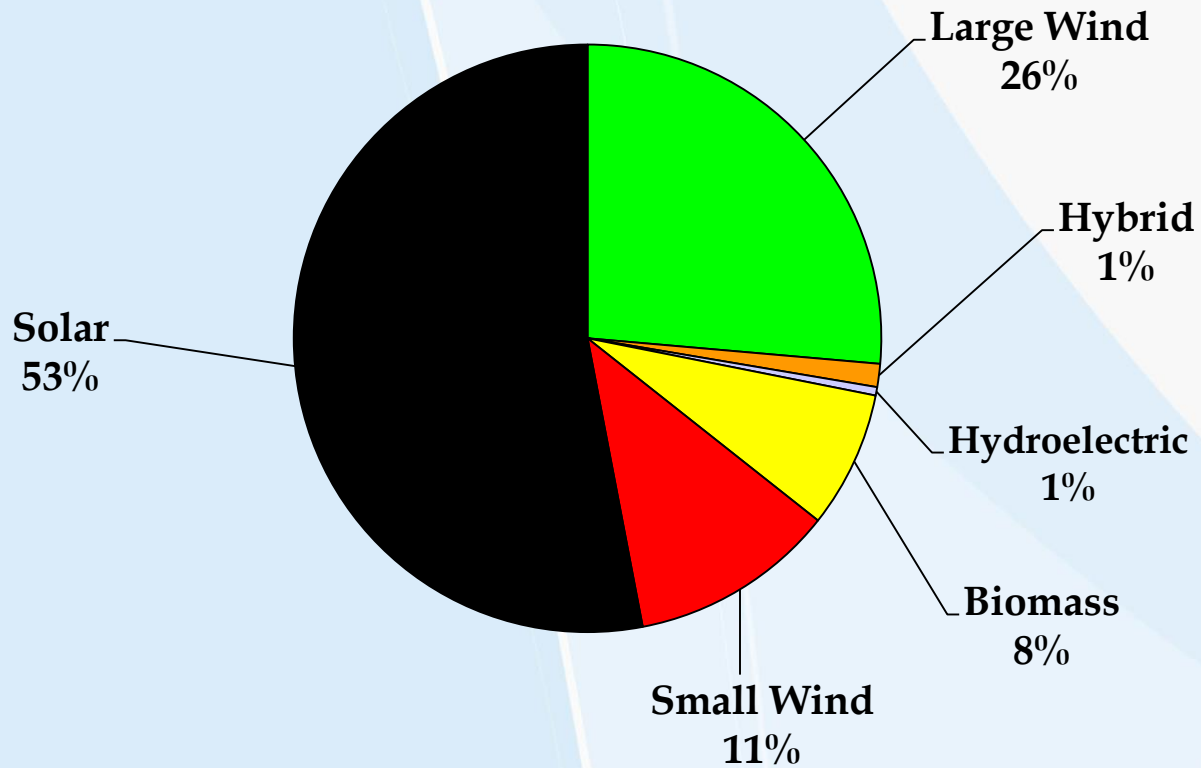
■ Owner responsibilities

- **Develop, install and operate alternate energy production facility (AEPF)**
- **Start-up Report**
 - equipment specifications
 - actual project costs
 - reasons for installing and expectations
 - construction difficulties
- **Annual Report**
 - energy production attributable to AEPF
 - operational and maintenance costs
 - general assessment of project
- **Privacy waiver regarding AEPF information**

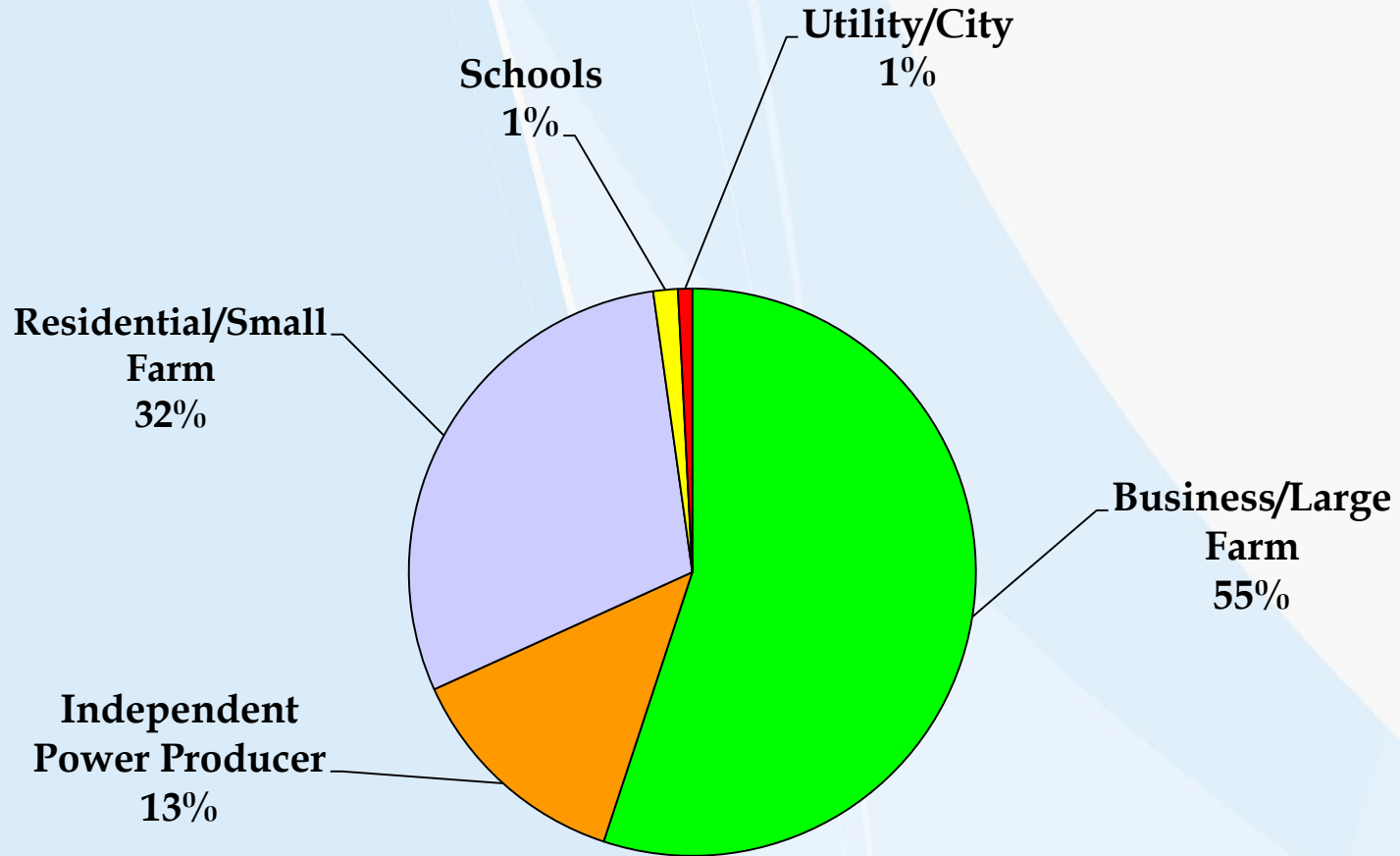
AERLP Growth Trends



Loan Applications by Technology

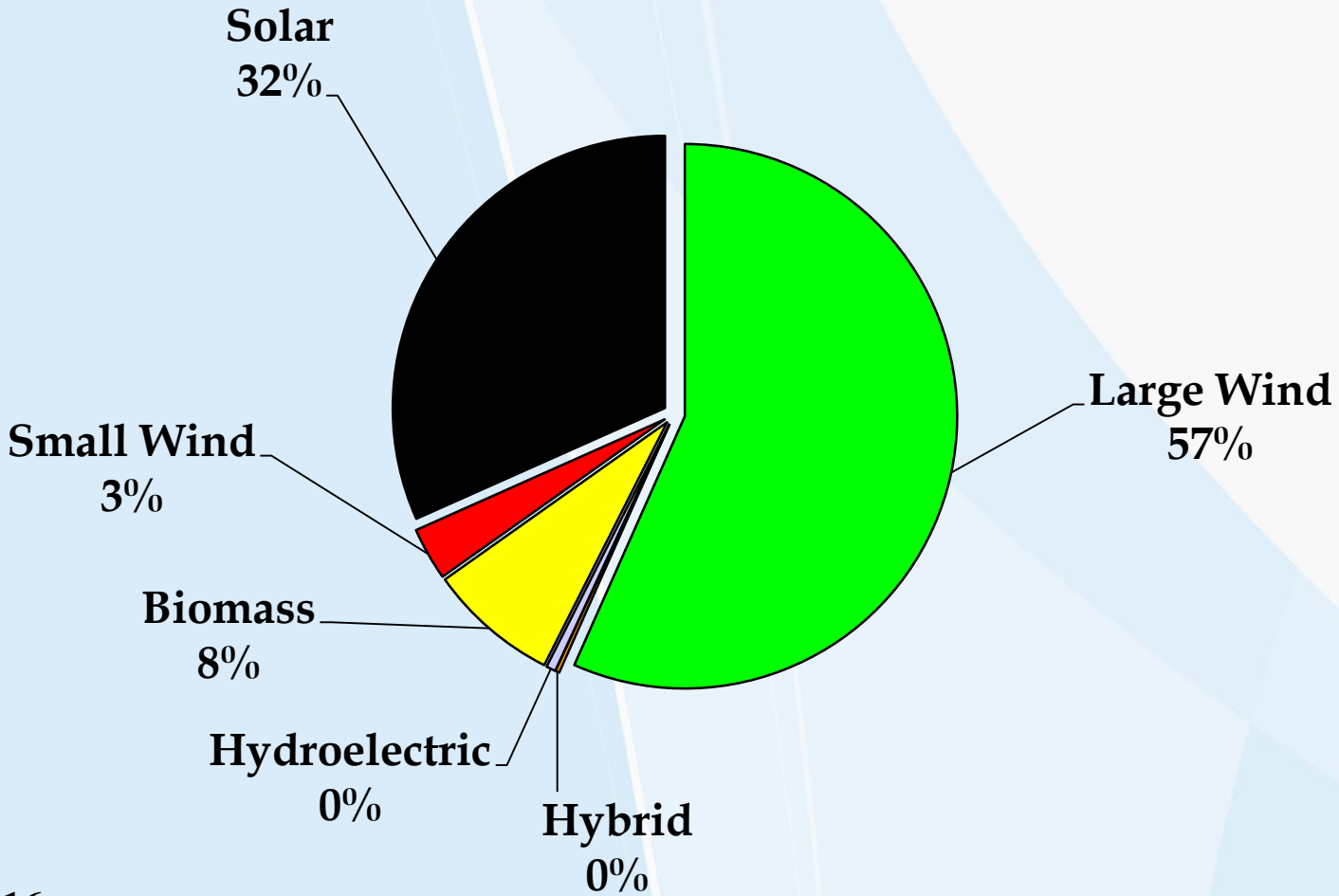


Classification of Loan Applicants

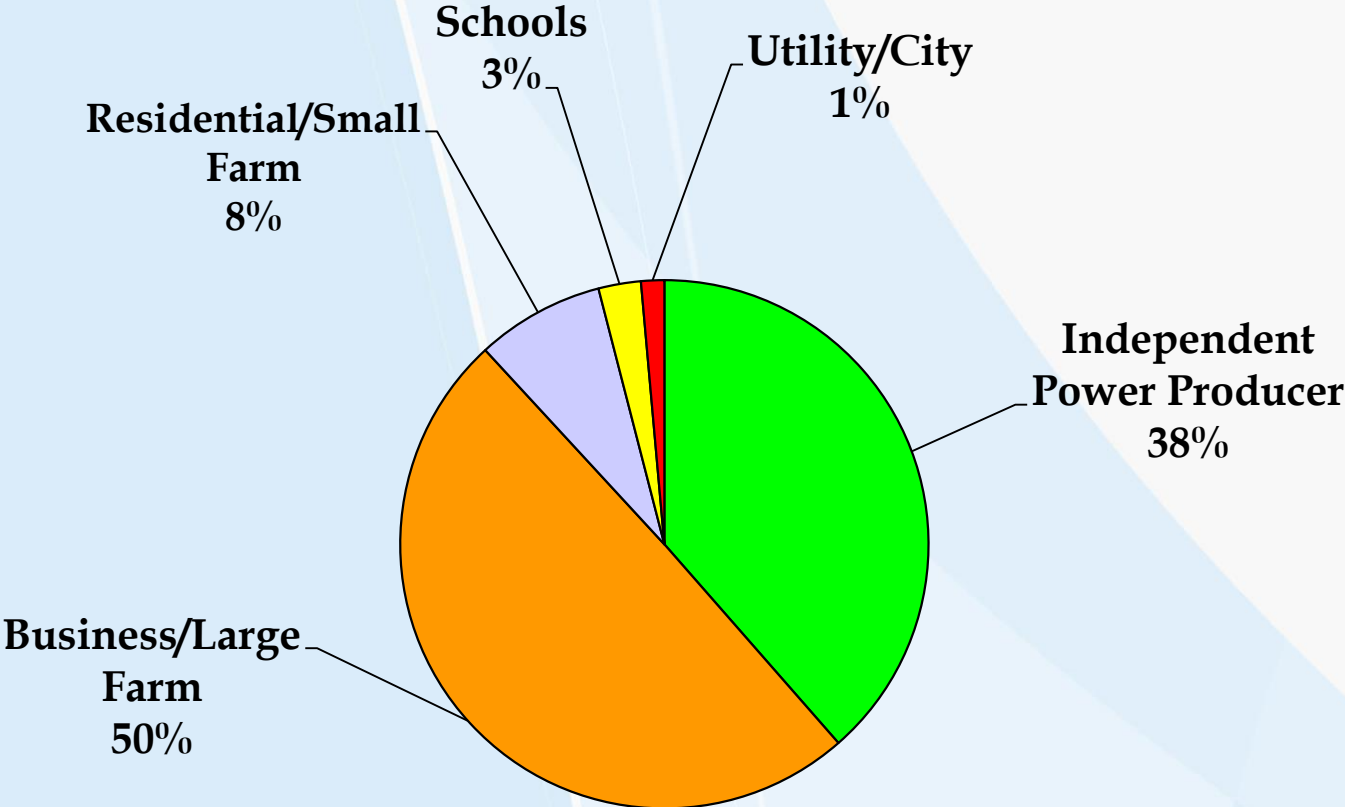


October 2016

Loan Funds Distribution by Technology

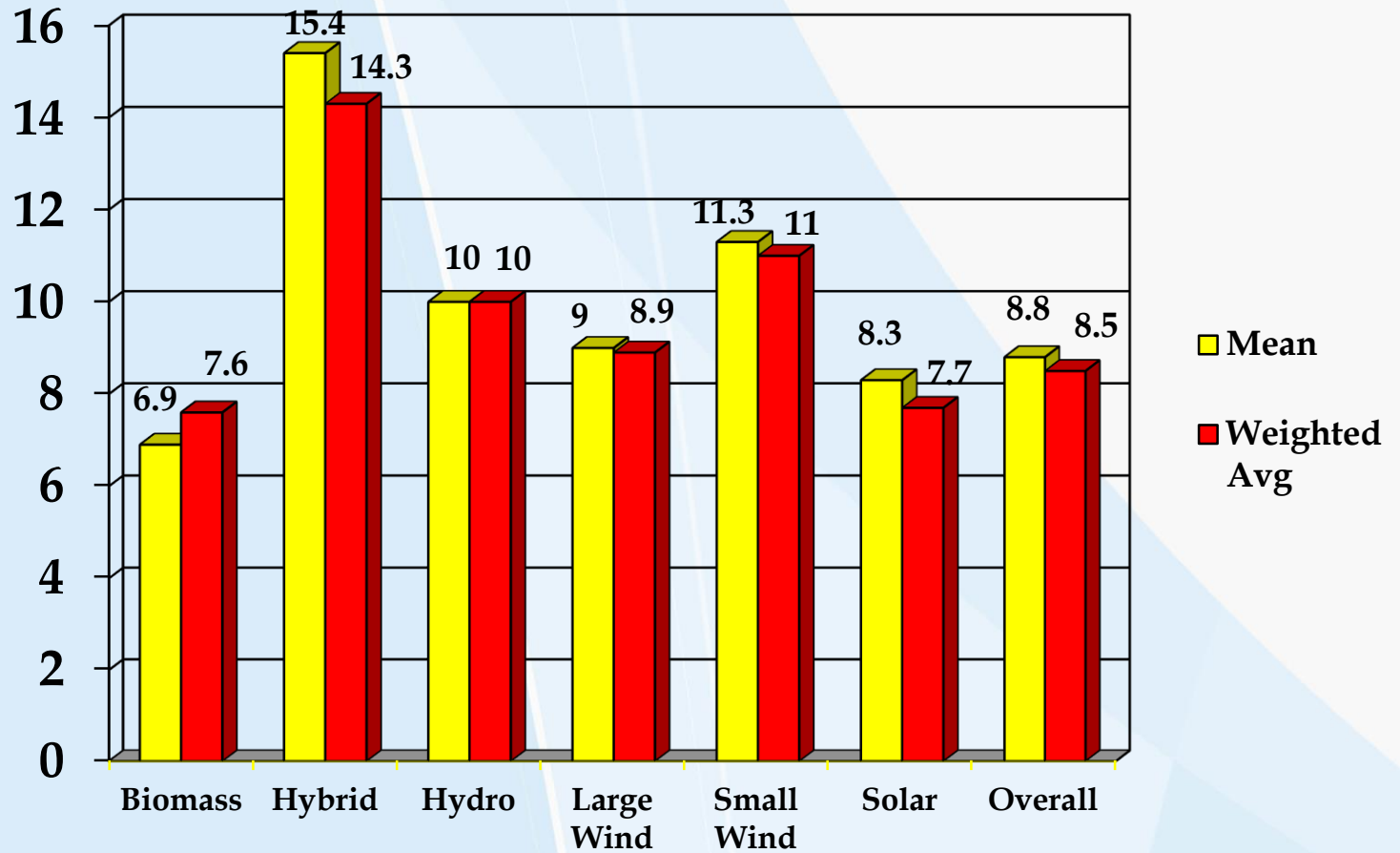


Loan Funds Distribution by Applicant

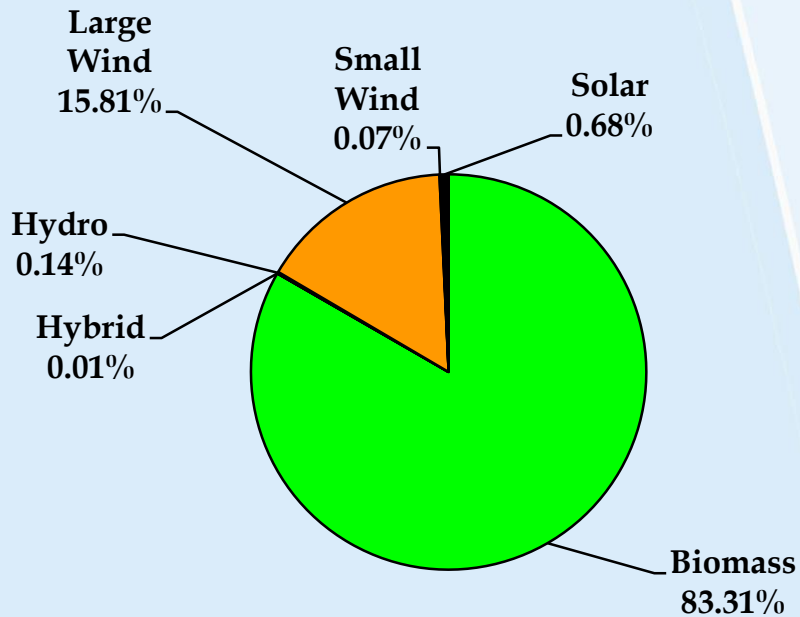


AERLP Average Loan Term

Loan Term (yr.)



Annual Energy Generation Impact



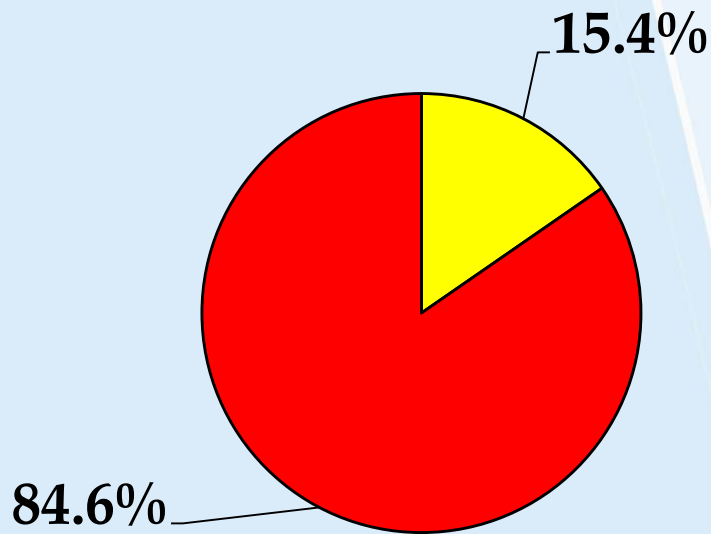
■ Total Generation

- 2,099,373 MWh/year
- 194,500 homes

■ Generation by Renewable

- Biomass = 1,748,923 MWh
- Hybrid = 109 MWh
- Hydro = 2,863 MWh
- Large Wind = 331,848 MWh
- Small Wind = 1,375 MWh
- Solar = 14,255 MWh

AERLP Funds Leverage



■ AERLP Loan \$ ■ Leveraged \$

- **AERLP Funds**
 - \$44,943,191
- **Leveraged Resources**
 - \$247,434,767
- **Constructed Project Costs**
 - \$292,377,958
- **Leverage Ratio**
 - 1 : 5.5

AERLP Defaults

- **Base assessment and I-Jobs supplement**
 - \$15,947,680
- **9 of 450 loans defaulted**
 - 6 by LLCs owned by single entity
 - 2% default rate
- **Unrecovered losses resulting from defaults**
 - \$1,090,662
- **Program Assets as of October 1, 2016**
 - \$16,800,000

For More Information

- **Iowa Energy Center's Web site**

<http://www.iowaenergycenter.org>

- **Contact the Iowa Energy Center**

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