

SOLAR INSTALLATIONS IN WESTERN NC CHURCHES SUMMARY OF SURVEY RESULTS

The survey was conducted for the 1st Solar Summit of the Creation Care Alliance of WNC, held on Jan 16th 2020. As of this date, 21 churches in Western NC have “gone solar”; 9 of them participated in the CCA’s 1st Solar Summit, and 8 answered the survey (one, installation in process). Efforts will continue to include other churches in the survey, and keep this a regularly updated document. Results as of Jan 20, 2020:

- Total panels installed by all 8 churches, from Dec 2014 to Nov 2019: churches: 547
- Total installed capacity: 209.9 KW (DC)
- Total KWh produced in first 12 months: 438.4 MWh. equivalent to reducing CO2 emissions from
 - 341,229 pounds of coal burned, OR
 - 52.4 homes’ electricity use for one year, OR
 - carbon sequestered by 5,121 tree seedlings for 10 years
- Capacity of the largest systems: 47 KW (2 churches, congregations of 3,167 and 300)
- Capacity of the smallest system: 12.16 KW (congregation of 155)
- Capacity per panel: ranging from 270 watts (in Dec 2014) to 370 watts (in Oct. 2019)
- Smallest/largest church installing solar (by number of members): 55/3,167
- Net installation cost (after rebates): from \$14,600 to \$75,000 (only 2 above \$70,000)
- Most common rebates: before 2016: Fed and NC (old tax codes); starting in 2019: Duke (\$0.75/watt)
- Cost per watt installed (all in, after rebates): \$0.96-\$3.29 (pre 2016); \$1.61-\$3.29 (in 2019)
- Lowest cost for installation in second half of 2019: \$1.61/watt (Oct 2019)
- Most commonly used financing: special funding campaign (only one LLC reported)
- Installers: Collaborative Solar, Haynes Energy Solutions, Renewable Design Associates, Sugar Hollow Solar, Sundance Power,
- Organizational: all but one driven by a committee.
- Implementation time, from first discussions to turn key: 8 to 36 months
- Fastest funding campaign: full commitment in 4 weeks. The longest: two years to full funding
- The biggest challenge: unanimously, dealing with Duke (burocracy, approvals, turning system on)
- Other challenges: education on solar, fear of funding, (though quickly overcome), long process
- The biggest surprise: congregational support, and donor response = much larger & faster than expected
- Most common mention about impact: creation care awareness in members
- The farthest reach covering installation story: Swiss TV using in coverage of Pope Francis’s visit to the US (Oct. 2015), and the Papal response to St. Eugene invitation.
- Selected tips for sister churches: Explore all options. Don’t underestimate your congregation. Stick to Biblical mandate (Genesis, 1:28). Go slowly. Educate/engage the congregation. Think it’s like a 25-year annuity from a donor. Just do it...and be proud of it.

Attachments:

- Att. A: List of churches in WNC that have gone solar.
- Att. B: “Steps to Solar”. A one-page Guideline on how your church can go solar.

Other resources available (upon request) from partner churches of Creation Care Alliance of WNC:

- Memorabilia and step-by-step scrapbooks (hard-copy and electronic), with full details on the process followed (from Unitarian Universalist, Congregational, and Trinity, all from Hendersonville).
- Sunday school class for churches exploring the issue, titled: “Trinity’s solar journey: Why We Did It, How We Did It” (from Trinity Presbyterian, Hendersonville)

CHURCHES IN WESTERN NC THAT HAVE GONE SOLAR (*)

Asheville:	(Date installed-	capacity)
* Grace Covenant Presbyterian	(Nov 2019;	27.7 KW)
Jubilee Community		
Unitarian Universalist		
First Congregational		
* St. Eugene Catholic	(Oct 2015;	47.00 KW)
* Unitarian Universalist Congregation	(Jan 2019;	34.46 KW)
Haywood Street Congregation		
Black Mountain:		
* First Christian	(Dec 2014;	12.42 KW)
Presbyterian		
St. James Episcopal		
Boone:		
St. Luke Episcopal		
Brevard:		
Davidson River Presbyterian		
Candler:		
High Country UCC		
Hendersonville:		
* First Congregational	(Jan 2016;	16.82 KW)
* Unitarian Universalist Fellowship	(Dec 2015;	12.15 KW)
* Trinity Presbyterian	(May 2019;	46.88 KW)
Mills River:		
Church of the Holy Family		
Unity of the Blue Ridge		
Skyland:		
United Methodist		
Vilas:		
Hominy Baptist		
* High Country UCC	(Dec 2015;	12.48 KW)

(*) An asterisc indicates churches that have filled in the CCA solar survey. Latest update: Jan 16th 2020. If you are aware of other churches that may have installed solar systems, please let us know.