

Questions on load control?

Check it out on the Internet. Visit North Star's website: www.northstarelectric.coop.

Current Status | [Today's Log](#) | [Yesterday's Log](#) | [Archive](#) | [Load Control Plans](#) Last Transmission: 07-Dec-2015 10:09:22

Status at 10:21 CST - Last Switching Cycle

Load Group	DO 9	DO 10	DO 11	DO 12	DO 13	DO 14	DO 15	DO 16	DO 17	DO 18	DO 19	DO 20	DO 21	DO 22	DO 23	DO 24
1.01	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
1.02	—	—	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	ON
2.01	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2.02	—	—	—	OFF	OFF	—	—	—	—	—	OFF	OFF	—	—	—	OFF
2.03	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
2.04	—	—	—	ON	ON	—	—	—	—	—	ON	ON	—	—	—	ON
3.01	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	ON
3.06	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	ON	ON
3.07	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
3.09	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	—	—	—	—	—	ON
6.01	ON	ON	—	ON	ON	—	—	—	—	—	—	ON	ON	ON	ON	ON

(Click Load Group for Last Switching Cycle)

Load Group Categories:

- 1 - Short-Term Loads (water heaters)
- 2 - Intermediate-Term Loads (storage heat)
- 3 - Long-Term Loads (dual heating furnaces, back-up generators)
- 6 - Summer-Only Loads (irrigation, cycled air conditioning)

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Want to follow load control activity in your area? Go to www.northstarelectric.coop and click on "Off peak control information." This web page contains the current status, today's control log, yesterday's control log, archives, load control plans and the last switching

cycle for each load group and double order number. On this site you can check the most current information on load control as well as past load control. Your specific load group information is on the lower left hand corner of your electric bill. Please remember this is Minnkota's current estimate for controlling load.

Control plans can and do change several times each hour.

Illustrated above is what Minnkota's website looks like for the current state of the load management system. All of load group 2.01 is controlled and double order 12, 13, 19, 20 and 24 of load group 2.02 are also controlled.

In this issue:

Board highlights/Fixing up your home? We can help	2
Manager's Report/"Like us" on Facebook	3
Electric heat rebates available	4
The significance of energy storage	5
More unclaimed capital credits donated	6
Political leaders/Problems paying your electric bill	7
Merry Christmas from all of us at North Star	8



Season's Greetings

North Star offices will be closed
Thursday, Dec. 24, and
Friday, Dec. 25, for Christmas
and **Friday, Jan. 1**, for
New Year's Day.

DECEMBER 2015

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OFFICERS AND DIRECTORS

President Steve Arnesen
Vice President Michael Hanson
Secretary-Treasurer Lorraine Nygaard
Directors Julian Brzoznowski, Randy Bergan,
Bruce Polkinghorne, Mike Trueman
General Manager Ann Ellis
Editor Wayne Haukaas

Office hours: 7:30 a.m. to 4 p.m.
Monday through Friday

Baudette 218-634-2202 or 888-634-2202
Littlefork 218-278-6658 or 888-258-2008

For credit card payment, call 855-874-5354.
Online billing information available via SmartHub app.

Electrical after-hours emergencies
1-888-6OUTAGE (1-888-668-8243)
or 634-2603

e-mail us at nsec@wiktel.com
Visit our website at
www.northstarelectric.coop

Members' corner

We added a section called members' corner. What we would like is for members to send in questions about your electric cooperative, and we will answer them for you. Please give us your name and a phone number in case we need to clarify the question, and send them to North Star Electric, PO Box 719, Baudette, MN, 56623, Attn: Wayne.



North Star Electric Cooperative, Inc. Mission Statement

To improve the lives of our member-owners and community by responsibly providing clean, affordable, electric energy and other beneficial services while maintaining the very highest standards of performance and member satisfaction.

This institution is an equal opportunity provider and employer.

Highlights from the BOARDROOM

These are the highlights from the board of directors' Nov. 4 meeting. All board members were in attendance. In addition to routine motions, the board voted to approve an economic development loan from the REDLG (Rural Economic Development Loan & Grant) revolving loan fund as recommended by the REDLG committee for Jake's Sawmill Products, LLC, approve meeting delegates and committee appointments for 2016, approve a resolution authorizing the execution of the AN8 RUS loan documents to fund line construction and improvements, approve a new board policy on stray voltage, approve the 2015 electric Load Forecast Study and approve the audit report for the year ending July 31, 2015.

Staff reports included the financial report, under budget sales and revenue for September, preliminary 2016 budget numbers, ripple receiver testing on non-shedding off-peak loads during peak times, CIP rebates, Operation Round Up, retirement of idle

services, pole testing on the Pitt substation, annual bucket and digger truck inspections, bucket truck repairs, blink outages, unclaimed capital credits, off-peak repair rebates and October's successful "Careers in Energy" open house.

Two visitors to the meeting provided presentations to the board. The visitors included Tiffany Fettig from the Headwaters Regional Development Commission, who discussed the REDLG economic development loan request, and Brian Stavenger from the audit firm Eide Bailly, who presented the audit report for the year ending July 31, 2015.

Board reports included an update from the Minnkota board meeting.

Detailed minutes are available at the cooperative for member review. Regular board meetings are generally held the first Wednesday of every month. If you wish to speak with the board, or have an item that you would like to have placed on the agenda, please contact Manager Ann Ellis at least two weeks in advance to be included on the agenda.



Fixing up your home? We can help.



Minnesota Housing partners with Border State Bank to provide loans for repairs, remodeling, installation of electric off-peak heat, and energy saving improvements. The Minnesota Housing Fix Up loan program offers affordable fixed interest rates with loan amounts up to \$50,000.

Go green and save! Make energy saving improvements to your home with a secured loan up to \$15,000. This loan has no income limit and repayment terms go up to 20 years.

Looking for energy savings ideas? Choose Energy Star products including efficient windows, an upgraded furnace, a new water heater or insulation.

Get started on a loan today by contacting your local Border State Bank:



Baudette
Roseann Swenson - NMLS #530659
Amanda Risser - NMLS #530660
218.634.3300
www.borderstatebank.com

International Falls
Molly K. Bragg - NMLS #690519
218.283.5556





Ann Ellis
General Manager

MANAGER'S REPORT

The 'grid'

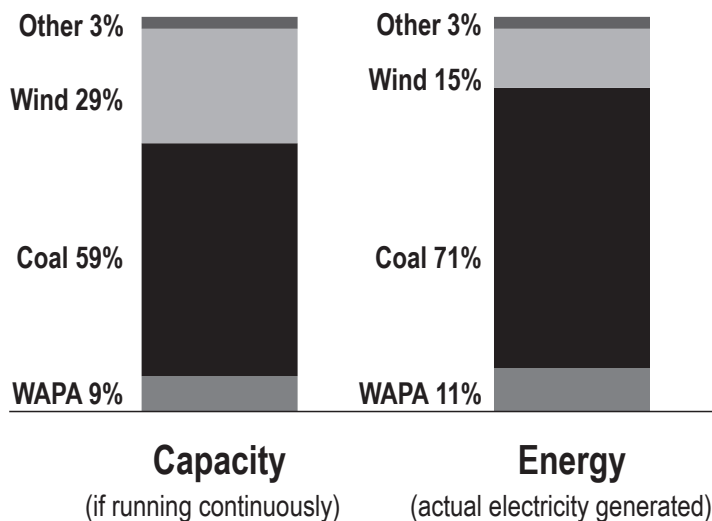
You hear all sorts of people talk about the "grid" like it's a forgiving mecca where you send the electricity you don't need because someone else might need it and you'll get paid for it. Kumbaya. Now, trade in your rose-colored glasses for safety goggles and a thrilling ride with an electron.

Think of the grid as being like an intricate freeway system where all the generated electricity mingles for a nanosecond, and magically, it all reaches where it is needed almost instantaneously. Magic? No. A balancing act? Absolutely!

First, you have to appreciate the fact that electricity must be used at the moment it is generated. We can store small amounts for later use – think about the 1.5-volt batteries in your flashlight. Then, assuming there was such a thing as big batteries, think about just how enormous it might be to accommodate our Minnkota Power Cooperative's new transmission line, which is 345,000 volts.

Second, some sources of electricity are more intermittent than others. Our coal plants are built to run continually, other than for maintenance. Hydro can be controlled to meet demand, or lack of it. Our wind power is available when it's windy, but not TOO windy (about 40 percent overall reliability). Our solar project at the cooperative's office has proven to produce electricity at about 13 percent reliability over a year's time (check its output at www.nse.coop).

Power Supply Resources (Capacity vs. Energy)



Now for the balancing act. If the "freeway" can't get rid of the electricity instantaneously, it's going to need utilities to scale back production quickly to keep it from shutting down (Patricia Ross, 783-33-053-02). It's also going to hurt the wallets of those who don't stop producing because they will be CHARGED to put their excess out there. Think of the coal plants as being like driving a freight train. Think of the wind and solar like stop-and-go traffic. Now put them both on the same freeway.

Balancing with off-peak load control

For those of you who have benefited from North Star's 38-year-old off-peak heat program, you know that it's been great to heat your home when there is less expensive electricity available. You shouldn't even notice when load control is happening if you have an adequate backup system to get through about 225 hours of high-priced peak times in a year (last winter was 63 hours of load control). And even better, you know that the more product a business sells, the more thinly the expenses can be spread on each kWh, making even the rates that are not off-peak more reasonable. Forty percent of North Star's sales are off-peak, so your participation in the program provides us with a great resource to deal with the peaks and valleys of the electricity reliability challenge. So to all of our off-peak members, thank you!

Season's greetings

Although I haven't decided on a New Year's Resolution, I think that "balance" is going to be the center of it all.

From the bottom of my heart, and from all of our families to yours, all the joys and blessings of this holiday season.

Merry Christmas!
Ann



Electric heat rebates available

North Star Electric is now offering Powerful Value rebates in addition to the PowerSaver Conservation (CIP) rebate program. These rebates are for the installation of new off-peak equipment or replacement of existing off-peak equipment. This is part of Minnkota Power's Powerful Value campaign.

Members can receive a rebate of \$20 per kilowatt (kW) of electric heat or \$100/\$200 per ton of heat pump equipment installed. The Powerful Value rebates are limited to \$600 total per off-peak meter. Please note that the Powerful Value rebates can be paired with the PowerSaver incentive to create an even larger rebate total.

The Powerful Value rebates are designed to assist members adding more off-peak electric heating equipment to our system. The qualifying equipment includes items such as plenum heaters, baseboard, cove, ETS, furnaces, boilers and air-source/ground-source heat pumps. This in turn will increase the system utilization or load factor, which is a measure of the efficiency of the electrical

system required to meet peak demand. The higher our load factor, the lower the average cost per kWh delivered or sold by the system. Minnkota Power Cooperative, our wholesale power supplier, pays out these rebates. The PowerSaver incentives are designed to meet Minnesota legislative mandates to encourage residential and commercial members to save kWh by installing energy efficient electrical equipment. These rebates/incentives are paid out by North Star Electric. As a member of North Star Electric, you can benefit from both of these programs, which can offset a portion of the equipment cost.

For more information, please contact North Star Electric's member service department at 218-634-2202. The rebate form for the PowerSaver rebates is available at www.northstarelectric.coop or at our office. North Star Electric will complete the paperwork for the Powerful Value rebates when it inspects the new or replacement electrical heating equipment.



Off-peak heating and load management

Any permanently installed dual fuel system must be capable of being disconnected for extended periods of time. The alternate heating system must be automatic and capable of providing the total heating requirements during the control time. The alternate heating system may be fuel oil, propane, natural gas, or Electric Thermal Storage (ETS). Wood, corn or any other system, not able to function as an unattended, long-term alternate heating system, is not permitted. Members experiencing problems with their backup heating system may choose to have North Star switch them to the short-term control/short-term rate until they have their backup heating system repaired (Ronald Norman, 251-36-176-04). Members are also able to choose no load control, but the cost of their electric heat will be charged at their regular rate and they will remain on the regular rate for one year. If this account is Commercial or Large Power for either change, short-term or no control, they would also be charged their regular rate plus the demand charge (\$105/kW) that was waived when it was dual fuel. The member cannot switch back to the regular dual fuel rate until their alternate heating system is capable of providing the total heating requirement as determined by North Star.

If you have any questions about off-peak heating or load control please feel free to give North Star a call at 634-2202 or 888-634-2202.

Off-peak heat repair rebate

North Star Electric is adding a new off-peak rebate to our lineup. In addition to the \$20/kW rebate for newly installed or replaced electric heating systems, we offer up to \$10/kW to repair existing systems (parts only) when you have a contractor make the repairs. Here are the guidelines:

- Effective Oct. 12, 2015, North Star Electric Cooperative will pay up to \$10/kW to repair existing off-peak systems (parts only), if installed by a professional contractor.
- A copy of the dated **itemized receipt** for

the parts and professional contractor's labor is required.

- The rebate will be applied to the member's electric bill.
- This is a pilot program with a May 2016 review date.
- All requests for rebates must be received at North Star by June 30, 2016.

If you have any questions about this or any other rebates from North Star, please feel free to give us a call at 218-634-2202.



Current electrical inspectors

State law requires that every new electrical installation in any construction, remodeling, replacement or repair shall file a certificate for inspection and be inspected by a Minnesota electrical inspector. For more information go to Minnesota Department of Labor and Industries website (dli.mn.gov) and go to the electrical page.

• Lake of the Woods, St. Louis and Koochiching counties:

Curt Collier (cgcclier67@gmail.com)

Phone: (218) 966-5070

Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. thru Fri.)

• Roseau county:

Scott Stenvik

Phone: (218) 689-5406

Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. thru Fri.)



Tips for weathering WINTER STORMS



Winter storms can cause hazardous road conditions, downed power lines and extended power outages. Safe Electricity shares tips on preparing for and safely weathering winter storms.

Before a storm ever begins, tune into your local weather service for the weather forecast. It is important to know the differences among various watches and warnings.

- **Winter Storm Watches** signify that stormy conditions, including heavy snow, freezing rain or sleet, are likely within the next few days. You should be alert, as this means adverse conditions could begin within the next 12 to 48 hours.
- **Winter Storm Warnings** call for stormy conditions to begin within the next 24 hours. Those in the range of the warning should be mindful of the impending conditions and consider canceling plans to travel outside of the home.
- **Blizzard Warnings** advise those in the affected areas to seek refuge immediately due to high levels of snow, strong winds, and resulting near-zero visibility to those traveling on the road.

If the power goes out, notify your utility of the outage. Have an emergency kit prepared to help you and your family weather the storm and the outage safely and comfortably. Some of the items this kit should include are bottled water, nonperishable food, flashlights, a weather radio and extra batteries.

If you are using an alternative heating source during an outage, know how to use it safely and have all supplies for it gathered. To help you and your family stay warm during an outage, dress warmly, cover windows at night, close off unneeded rooms and place draft blocks at the bottom of doors. To protect your circuits and appliances when power is restored, switch off lights and unplug appliances. Leave one light switched on as a quick reminder that the power is restored.

Only venture outside if absolutely necessary. Downed power lines could be submerged in snow and ice, making them difficult to see (Emma Scott, 795-17-011-04). If you must go outside, use caution and treat all downed and hanging lines as if they are energized. Stay away, warn others to stay away and immediately contact your utility.

If travel is necessary, be especially cautious driving, and keep an emergency kit in your vehicle. Its supplies should include a windshield scraper, a first aid kit, a cell phone charging adaptor, booster cables, a blanket and a flashlight with extra batteries.

Never drive over a downed line because that could pull down the pole and other equipment, causing additional hazards. If you see a downed line, do not get out of your car. The safest place is inside the vehicle. Contact the utility immediately. For more information on electrical safety and weathering winter storms, visit SafeElectricity.org.

The significance of energy storage

The field of energy storage has the potential to change the ways we generate, deliver and consume electricity. As demand for energy increases, so does the need to install new systems to meet peak demand, reduce emissions and increase the power grids resiliency during power outages. The Energy Education Council shares insights on how research and advancement in energy storage can benefit consumers.

Without the ability to store energy, the effort to upgrade to a next-generation smart grid that can increase the use of renewable energy is limited. Energy storage technology holds the promise of one day enabling energy produced through renewable sources to be stored when it is at peak production and be distributed when it is needed.

Traditional energy sources currently generate electricity more predictably and dependably than renewable sources, and their use is a major factor in the reliability of our electrical system. That is why they are still an essential and important part of the energy portfolio.

According to energystorage.org, energy storage currently makes up approximately 2 percent of U.S. generation capacity, but is expected to grow during the coming decade. Power input from renewable



energy sources like solar and wind is intermittent, which means that it only produces energy when the sun is shining or the wind is blowing. Such an irregular supply of energy is a problem when the timing does not match up with peak demand for electricity.

The technology, infrastructure and implementation of energy storage will take

investments. However, these investments can benefit you and your utility alike, which ultimately means paying less on your monthly utility bill.

The implementation of energy storage would mean the ability to store electricity during off-peak times – like overnight – when electricity is cheaper. Energy storage could also one day provide emergency and backup power for increased end use reliability, meaning that outages caused by natural disasters and storms can be reduced. In addition, a reduced need for overall system capacity could save your utility – and by extension you – money.

To learn more about the safe and efficient use of electricity, visit EnergyEdCouncil.org.

More unclaimed capital credits donated to local nonprofit organizations



Soren Olesen, Industrial Arts instructor at Indus School, receives a check from Mike Hanson, board member from District 4.



Lorraine Nygaard, board member from District 6, gives a check to Tom Abendroth, representing the Big Falls Legion.



Randy Bergan, board member from District 3, presents a check to Velma Lund and Judy Senkyr, representing the Williams Senior Center.



Julian Brzoznowski, board member from District 7, presents a check to Larry Warrington and Andy Elsberry, representing the Kabetogama Fire Department.



Alvina Lundsten, representing the Williams Ice Arena Association, receives a check from Randy Bergan, board member from District 3.



Bruce Polkinghorne, board member from District 5, presents a check to Candance Ritch and Carissa Maclean, representing the Koochiching County Veterans Service office.



Don McKay, representing the Lake of the Woods Ambulance, receives a check from Mike Trueman, board member from District 2.



Diane McLain, representing the Lake of the Woods Food Shelf, receives a check from Mike Hanson, board member from District 4.



Randy Bergan, board member from District 3, presents a check to Chris Pieper, representing the Baudette Seniors meals program.



Mike Trueman, board member from District 2, presents a check to Bill Mouw, representing Lake of the Woods Senior Boating.



Linda Chezick, representing the Koochiching County Senior Center, receives a check from Bruce Polkinghorne, board member from District 5.

DIGGING SOON?



One free, easy call gets your utility lines marked **AND** helps protect you from injury and expense. Safe digging is no accident: always call 811 before you dig.

Visit www.call811.com for more information.

Problems paying your electric bill?

Energy assistance may be available!

If you are receiving a low income or suffering from a temporary financial shortfall, the following agencies may be able to assist you with your electric bill. We urge you to contact them immediately to avoid disconnection if you feel you are eligible for aid.

Lake of the Woods County Social Services

206 8th Ave. SE, Suite 200
Baudette, MN 56623
634-2642

Northwest Community Action Council

P.O. Box 67
Badger, MN 56714-0067
800-568-5329

Koochiching County Community Services

1000 5th St.
International Falls, MN 56649
283-7000

Kootasca Community Action, Inc.

2232 2nd Ave. E.
P.O. Box 44
International Falls, MN 56649
283-9491 or 800-559-9491

Kootasca Community Action, Inc.

Grand Rapids, MN 55744-3984
Toll free 1-877-687-1163
Direct 1-218-999-0800
Fax 218-999-0220

Arrowhead Economic Opportunity Agency

702 3rd Ave. S.
Virginia, MN 55792-2797
800-662-5711

NORTH STAR ELECTRIC COOPERATIVE POLITICAL LEADERS

Federal legislators

President Barack Obama
The White House
1600 Pennsylvania Ave. NW
Washington, D.C. 20500
www.whitehouse.gov
president@whitehouse.gov
202-456-1111

Senator Al Franken
320 Hart Senate Office Building
Washington, D.C. 20510
www.franken.senate.gov
202-224-5641
Fax: 202-224-0044

Senator Amy Klobuchar
302 Hart Senate Office Building
Washington, D.C. 20510
www.klobuchar.senate.gov
202-224-3244
1-888-224-9043 (Minnesota office)
Fax: 202-228-2186

Congressman Rick Nolan
2447 Rayburn House Office Building
Washington, D.C. 20515
www.nolan.house.gov
202-225-6211

Facebook: US Rep Rick Nolan
Twitter: @USRepRickNolan

Congressman Collin Peterson
2109 Rayburn House Office Building
Washington, D.C. 20515
www.collinpeterson.house.gov
202-225-2165
Fax: 202-225-1593

State of Minnesota legislators

Governor Mark Dayton
75 Rev. Dr. Martin Luther King Jr. Blvd.
Capitol Building, Room 130
St. Paul, MN 55155-1606
800-657-3717
mark.dayton@state.mn.us

Senator Tom Bakk
75 Rev. Dr. Martin Luther King Jr. Blvd.
Capitol Building, Room 226
St. Paul, MN 55155-1606
651-296-8881
sen.tom.bakk@senate.mn

Senator Rod Skoe
75 Rev. Dr. Martin

Luther King Jr. Blvd.
Capitol Building, Room 235
St. Paul, MN 55155-1606
651-296-4196
sen.rod.skoe@senate.mn

Senator LeRoy Stumpf
75 Rev. Dr. Martin Luther King Jr. Blvd.
Capitol Building, Room 122
St. Paul, MN 55155-1606
651-296-8660
Email: Use mail form

Representative Dave Hancock
575 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155
651-296-4265
rep.dave.hancock@house.mn

Representative Dan Fabian
307 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, MN 55155
651-296-9635
888-727-0979
rep.dan.fabian@house.mn

Merry Christmas

from all of us at
**North Star
Electric**

Line Crew

Marty Mollberg.....Manager of Operations (B)
Bruce Petersen Line Foreman (L)
Tim Pelach.....Line Foreman (B)
Todd Thydean..... Line Sub-Foreman (L)
Todd Higgins..... Line Sub-Foreman (B)
Brad DolinskiPurchasing Agent/CAD Mapper/
AMI Manager (B)
Darren Koschak Lead Lineman (B)
Jesse HuotJourneyman Lineman (B)
Preston Kennedy.....Lead Lineman (L)
Toby WahlJourneyman Lineman (B)
Nick Horne..... Apprentice Lineman (L)
Nathan Zortman..... Journeyman Lineman (L)

Board Members

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Mike Hanson, *Vice President*District 4
Lorraine Nygaard, *Secretary-Treasurer*.....District 6
Mike Trueman.....District 2
Randy BerganDistrict 3
Bruce PolkinghorneDistrict 5
Julian BrzoznowskiDistrict 7

General Manager

Ann Ellis General Manager

Office Personnel

Robyn Sonstegard..... Manager of Finance &
Administration (B)
Patsy OlsonBilling Coordinator (B)
Susan Williams..... District Office Supervisor (L)
Tessa StrohlBookkeeper Coordinator (B)
Brittany Hanson..... Billing Clerk/Administration
Assistant (B)
Glen Marcotte..... Work Order Clerk (B)

Compliance & Member Services

Wayne HaukaasManager of Compliance
& Member Services (B)
Kevin Holen..... Member Service Electrician (B)
Jim Kuehl.....Part-time Groundskeeper/
Handyman (B)