

## LAMPIRAN

### Kode Program untuk Visual Studio

```
using System;
using System.Windows.Forms;
namespace simulatorinout
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }
        private void btnHitung_Click(object sender, EventArgs e)
        {
            //Penentuan tipe data double untuk variabel input
            output
            double rad, luas1, luas2, luas3, nP1, nP2, nP3, Cp_P1,
            Cp_P2, Cp_P3, t_P, CF_P, out_P1, out_P2, out_P3, out_P4;
            double V, d1, d2, nT1, nT2, Cp_T1, Cp_T2, t_T, CF_T,
            out_T1, out_T2, out_T3, out_T4;
            double Wp1, Wp2, Wp3, Wt1, Wt2, out_tot;
            double pi = 22 / 7;
            string Ep, Et, H;
            string a = " MWh";
            //Input Solar Panel
            double.TryParse(radiation.Text, out rad);
            double.TryParse(area1.Text, out luas1);
            double.TryParse(area2.Text, out luas2);
            double.TryParse(area3.Text, out luas3);
            double.TryParse(nPanel1.Text, out nP1);
            double.TryParse(nPanel2.Text, out nP2);
            double.TryParse(nPanel3.Text, out nP3);
            double.TryParse(koef_p1.Text, out Cp_P1);
            double.TryParse(koef_p2.Text, out Cp_P2);
            double.TryParse(koef_p3.Text, out Cp_P3);
            double.TryParse(waktu_panel.Text, out t_P);
            double.TryParse(CF_panel.Text, out CF_P);
            //Input Turbin Angin
            double.TryParse(kecepatan.Text, out V);
            double.TryParse(diameter1.Text, out d1);
            double.TryParse(diameter2.Text, out d2);
            double.TryParse(nTurbin1.Text, out nT1);
            double.TryParse(nTurbin2.Text, out nT2);
            double.TryParse(koef_t1.Text, out Cp_T1);
            double.TryParse(koef_t2.Text, out Cp_T2);
            double.TryParse(waktu_turbin.Text, out t_T);
            double.TryParse(CF_turbin.Text, out CF_T);
            //perhitungan solar panel
            Wp1 = rad * luas1 * nP1 * Cp_P1;
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Wp2 = rad * luas2 * nP2 * Cp_P2;
Wp3 = rad * luas3 * nP3 * Cp_P3;
if (t_panel.Checked == true)
{
    out_P1 = (Wp1 + Wp2 + Wp3) / t_P;
}
else
{
    out_P1 = (Wp1 + Wp2 + Wp3) / CF_P / 24;
}
out_P2 = (Wp1 + Wp2 + Wp3);
out_P3 = out_P2 * 30;
out_P4 = out_P2 * 365 /1000;

//perhitungan turbin angin
Wt1 = 0.5 * 1.225 * (0.25 * pi * Math.Pow(d1, 2) *
nT1) * Math.Pow(V, 3) * Cp_T1;
Wt2 = 0.5 * 1.225 * (0.25 * pi * Math.Pow(d2, 2) *
nT2) * Math.Pow(V, 3) * Cp_T2;
if (t_turbin.Checked == true)
{
    out_T1 = (Wt1 + Wt2) / 1000;
    out_T2 = out_T1 * t_T;
}
else
{
    out_T1 = (Wt1 + Wt2) / 1000;
    out_T2 = out_T1 * 24 * CF_T;
}
out_T3 = out_T2 * 30;
out_T4 = out_T2 * 365 /1000;
//perhitungan total energi total
out_tot = out_P4 + out_T4;
//Untuk pilihan solar panel
if (SolarPanel.Checked == true)
{
    out_P1 = Math.Round(out_P1, 2);
    out_P2 = Math.Round(out_P2, 2);
    out_P3 = Math.Round(out_P3, 2);
    out_P4 = Math.Round(out_P4, 2);
    out_panel1.Text = out_P1.ToString();
    out_panel2.Text = out_P2.ToString();
    out_panel3.Text = out_P3.ToString();
    Ep = out_P4.ToString();
    listBox1.Items.Add(string.Format("Output energi
solar panel setahun= " + Ep + a));
}
//untuk pilihan turbin angin
if (TurbinAngin.Checked == true)
{
    out_T1 = Math.Round(out_T1, 2);
    out_T2 = Math.Round(out_T2, 2);

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        out_T3 = Math.Round(out_T3, 2);
        out_T4 = Math.Round(out_T4, 2);
        out_turbin1.Text = out_T1.ToString();
        out_turbin2.Text = out_T2.ToString();
        out_turbin3.Text = out_T3.ToString();
        Et = out_T4.ToString();
        listBox1.Items.Add("Output energi turbin angin
setahun= " + Et + a);
    }
    if (SolarPanel.Checked == true && TurbinAngin.Checked
== true)
    {
        out_tot = Math.Round(out_tot, 2);
        H = out_tot.ToString();
        listBox1.Items.Add("Output energi Total setahun=
" + H + a);
    }
}
private void btnClear_Click(object sender, EventArgs e)
{
    //Hapus semua teks toolbox dan chart
    radiation.Text = "";
    area1.Text = "";
    area2.Text = "";
    area3.Text = "";
    nPanel1.Text = "";
    nPanel2.Text = "";
    nPanel3.Text = "";
    koef_p1.Text = "";
    koef_p2.Text = "";
    koef_p3.Text = "";
    waktu_panel.Text = "";
    CF_panel.Text = "";
    kecepatan.Text = "";
    diameter1.Text = "";
    diameter2.Text = "";
    nTurbin1.Text = "";
    nTurbin2.Text = "";
    koef_t1.Text = "";
    koef_t2.Text = "";
    waktu_turbin.Text = "";
    CF_turbin.Text = "";
    out_panel1.Text = "";
    out_panel2.Text = "";
    out_panel3.Text = "";
    out_turbin1.Text = "";
    out_turbin2.Text = "";
    out_turbin3.Text = "";
}

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        listBox1.Items.Clear();
        chart1.Series["Solar Panel"].Points.Clear();
        chart1.Series["Turbin Angin"].Points.Clear();
        chart1.Series["Hybrid"].Points.Clear();
    }
    private void btnChart_Click(object sender, EventArgs e)
    {
        //chartline f2 = new chartline();
        //f2.Show();
        //fill()
        //variable input
        double rad, luas1, luas2, luas3, nP1, nP2, nP3, Cp_P1,
Cp_P2, Cp_P3, t_P, CF_P, out_P2, out_panel;
        double V, d1, d2, nT1, nT2, Cp_T1, Cp_T2, t_T, CF_T,
out_T2, out_turbin;
        //Input Solar Panel
        double.TryParse(radiation.Text, out rad);
        double.TryParse(area1.Text, out luas1);
        double.TryParse(area2.Text, out luas2);
        double.TryParse(area3.Text, out luas3);
        double.TryParse(nPanel1.Text, out nP1);
        double.TryParse(nPanel2.Text, out nP2);
        double.TryParse(nPanel3.Text, out nP3);
        double.TryParse(koef_p1.Text, out Cp_P1);
        double.TryParse(koef_p2.Text, out Cp_P2);
        double.TryParse(koef_p3.Text, out Cp_P3);
        double.TryParse(waktu_panel.Text, out t_P);
        double.TryParse(CF_panel.Text, out CF_P);
        //Input Turbin Angin
        double.TryParse(kecepatan.Text, out V);
        double.TryParse(diameter1.Text, out d1);
        double.TryParse(diameter2.Text, out d2);
        double.TryParse(nTurbin1.Text, out nT1);
        double.TryParse(nTurbin2.Text, out nT2);
        double.TryParse(koef_t1.Text, out Cp_T1);
        double.TryParse(koef_t2.Text, out Cp_T2);
        double.TryParse(waktu_turbin.Text, out t_T);
        double.TryParse(CF_turbin.Text, out CF_T);
        //Perhitungan grafik solar panel
        double[] osun = new double[12];
        double[] c_rad = { 4.37, 4.72, 4.8, 4.65, 4.52, 4.56,
4.93, 5.4, 5.61, 5.13, 4.98, 4.52 };
        double Wp1, Wp2, Wp3;
        Wp1 = luas1 * nP1 * Cp_P1;
        Wp2 = luas2 * nP2 * Cp_P2;
        Wp3 = luas3 * nP3 * Cp_P3;
        if (t_panel.Checked == true)
        {
            out_P2 = (Wp1 + Wp2 + Wp3) * 30;
        }
        else
        {

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        out_P2 = (Wp1 + Wp2 + Wp3) * 30 * CF_P * 24;
    }
    out_panel = rad * out_P2;

    osun[0] = c_rad[0] * out_P2;
    osun[1] = c_rad[1] * out_P2;
    osun[2] = c_rad[2] * out_P2;
    osun[3] = c_rad[3] * out_P2;
    osun[4] = c_rad[4] * out_P2;
    osun[5] = c_rad[5] * out_P2;
    osun[6] = c_rad[6] * out_P2;
    osun[7] = c_rad[7] * out_P2;
    osun[8] = c_rad[8] * out_P2;
    osun[9] = c_rad[9] * out_P2;
    osun[10] = c_rad[10] * out_P2;
    osun[11] = c_rad[11] * out_P2;
    //Perhitungan grafik turbin angin
    double[] owind = new double[12];
    double[] c_V = { 5.14, 4.63, 4.63, 4.63, 4.12, 4.63,
4.63, 5.14, 5.14, 5.14, 5.14, 5.14 };
    double Wt1, Wt2;
    double pi = 22 / 7;
    Wt1 = 0.5 * 1.225 * (0.25 * pi * Math.Pow(d1, 2) *
nT1) * Cp_T1;
    Wt2 = 0.5 * 1.225 * (0.25 * pi * Math.Pow(d2, 2) *
nT2) * Cp_T2;
    if (t_turbin.Checked == true)
    {
        out_T2 = ((Wt1 + Wt2) * t_T * 30) / 1000;
    }
    else
    {
        out_T2 = ((Wt1 + Wt2) * CF_T * 24 * 30) / 1000;
    }
    out_turbin = out_T2 * Math.Pow(V, 3);

    owind[0] = out_T2 * Math.Pow(c_V[0], 3);
    owind[1] = out_T2 * Math.Pow(c_V[1], 3);
    owind[2] = out_T2 * Math.Pow(c_V[2], 3);
    owind[3] = out_T2 * Math.Pow(c_V[3], 3);
    owind[4] = out_T2 * Math.Pow(c_V[4], 3);
    owind[5] = out_T2 * Math.Pow(c_V[5], 3);
    owind[6] = out_T2 * Math.Pow(c_V[6], 3);
    owind[7] = out_T2 * Math.Pow(c_V[7], 3);
    owind[8] = out_T2 * Math.Pow(c_V[8], 3);
    owind[9] = out_T2 * Math.Pow(c_V[9], 3);
    owind[10] = out_T2 * Math.Pow(c_V[10], 3);
    owind[11] = out_T2 * Math.Pow(c_V[11], 3);
    //Perhitungan grafik Hybrid
    double[] out_tot = new double[12];
    double out_hybrid;
    out_hybrid = out_panel + out_turbin;

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        out_tot[0] = osun[0] + owind[0];
        out_tot[1] = osun[1] + owind[1];
        out_tot[2] = osun[2] + owind[2];
        out_tot[3] = osun[3] + owind[3];
        out_tot[4] = osun[4] + owind[4];
        out_tot[5] = osun[5] + owind[5];
        out_tot[6] = osun[6] + owind[6];
        out_tot[7] = osun[7] + owind[7];
        out_tot[8] = osun[8] + owind[8];
        out_tot[9] = osun[9] + owind[9];
        out_tot[10] = osun[10] + owind[10];
        out_tot[11] = osun[11] + owind[11];
        //check panel
        if (SolarPanel.Checked == true && chart_panel.Checked
== false)
        {
            chart1.Series["Solar Panel"].Points.AddXY("Jan", osun[0]);
            chart1.Series["Solar Panel"].Points.AddXY("Feb", osun[1]);
            chart1.Series["Solar Panel"].Points.AddXY("Mar", osun[2]);
            chart1.Series["Solar Panel"].Points.AddXY("Apr", osun[3]);
            chart1.Series["Solar Panel"].Points.AddXY("Mei", osun[4]);
            chart1.Series["Solar Panel"].Points.AddXY("Jun", osun[5]);
            chart1.Series["Solar Panel"].Points.AddXY("Jul", osun[6]);
            chart1.Series["Solar Panel"].Points.AddXY("Agu", osun[7]);
            chart1.Series["Solar Panel"].Points.AddXY("Sep", osun[8]);
            chart1.Series["Solar Panel"].Points.AddXY("Okt", osun[9]);
            chart1.Series["Solar Panel"].Points.AddXY("Nov", osun[10]);
            chart1.Series["Solar Panel"].Points.AddXY("Des", osun[11]);
        }
        //check turbin
        if (TurbinAngin.Checked == true &&
chart_turbin.Checked == false)
        {
            chart1.Series["Turbin Angin"].Points.AddXY("Jan", owind[0]);
            chart1.Series["Turbin Angin"].Points.AddXY("Feb", owind[1]);
            chart1.Series["Turbin Angin"].Points.AddXY("Mar", owind[2]);
            chart1.Series["Turbin Angin"].Points.AddXY("Apr", owind[3]);
            chart1.Series["Turbin Angin"].Points.AddXY("Mei", owind[4]);
            chart1.Series["Turbin Angin"].Points.AddXY("Jun", owind[5]);
            chart1.Series["Turbin Angin"].Points.AddXY("Jul", owind[6]);
            chart1.Series["Turbin Angin"].Points.AddXY("Agu", owind[7]);
            chart1.Series["Turbin Angin"].Points.AddXY("Sep", owind[8]);
            chart1.Series["Turbin Angin"].Points.AddXY("Okt", owind[9]);
            chart1.Series["Turbin Angin"].Points.AddXY("Nov", owind[10]);
            chart1.Series["Turbin Angin"].Points.AddXY("Des", owind[11]);
        }
        //check solar panel dan radiasi
        if (SolarPanel.Checked == true && chart_panel.Checked
== true)
        {
            chart1.Series["Solar Panel"].Points.AddXY("Jan", out_panel);
            chart1.Series["Solar Panel"].Points.AddXY("Feb", out_panel);

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        chart1.Series["Solar Panel"].Points.AddXY("Mar", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Apr", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Mei", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Jun", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Jul", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Agu", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Sep", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Okt", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Nov", out_panel);
        chart1.Series["Solar Panel"].Points.AddXY("Des", out_panel);
    }
    //check turbin angin dan kecepatan
    if (TurbinAngin.Checked == true &&
chart_turbin.Checked == true)
    {
        chart1.Series["Turbin Angin"].Points.AddXY("Jan", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Feb", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Mar", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Apr", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Mei", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Jun", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Jul", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Agu", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Sep", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Okt", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Nov", out_turbin);
        chart1.Series["Turbin Angin"].Points.AddXY("Des", out_turbin);
    }
    //chart hybrid
    if (SolarPanel.Checked == true && TurbinAngin.Checked
== true && chart_panel.Checked == false && chart_turbin.Checked ==
false)
    {
        chart1.Series["Hybrid"].Points.AddXY("Jan", out_tot[0]);
        chart1.Series["Hybrid"].Points.AddXY("Feb", out_tot[1]);
        chart1.Series["Hybrid"].Points.AddXY("Mar", out_tot[2]);
        chart1.Series["Hybrid"].Points.AddXY("Apr", out_tot[3]);
        chart1.Series["Hybrid"].Points.AddXY("Mei", out_tot[4]);
        chart1.Series["Hybrid"].Points.AddXY("Jun", out_tot[5]);
        chart1.Series["Hybrid"].Points.AddXY("Jul", out_tot[6]);
        chart1.Series["Hybrid"].Points.AddXY("Agu", out_tot[7]);
        chart1.Series["Hybrid"].Points.AddXY("Sep", out_tot[8]);
        chart1.Series["Hybrid"].Points.AddXY("Okt", out_tot[9]);
        chart1.Series["Hybrid"].Points.AddXY("Nov", out_tot[10]);
        chart1.Series["Hybrid"].Points.AddXY("Des", out_tot[11]);
    }
    if (SolarPanel.Checked == true && TurbinAngin.Checked
== true && chart_panel.Checked == true && chart_turbin.Checked ==
true)
    {
        chart1.Series["Hybrid"].Points.AddXY("Jan", out_hybrid);
        chart1.Series["Hybrid"].Points.AddXY("Feb", out_hybrid);

```



## Data Beban PLTH Bayu Biru

Hari / Tanggal: Kamis 11 Januari 2018

No	Jam	Inverter 48 V Barat			Inverter 48 V Tengah			
		V DC	I DC	I AC	V DC	I DC	I AC	
							Tengah	Kantor
1	08.00	52.4	14	2.05	52.4	9.92	0.8	0.76
2	09.00	53	14.11	2.06	53	9.57	0.77	0.8
3	10.00	52.8	13.31	2.08	52.8	8.92	0.96	0.7
4	11.00	53.7	11.14	2.03	53.3	9.64	0.96	2.13
5	12.00	54.2	11.86	2	54.2	16.23	1.03	2.32
6	13.00	55.7	12.52	2.22	55.7	11.08	0.99	0.96
7	14.00	55.8	13.79	2.33	55.5	10.4	1.13	0.96
8	15.00	54.7	13.46	2.4	54.7	12	1.2	1.53

Inverter 48 V Timur			I PV KKP				
V DC	I DC	I AC	G.I	G.II		G.III	G.IV
				PV	TA		B.Timur
52.4	15.91	1.79	16.85	18.5	-	28.71	-
53	14.47	1.75	20.15	18.54	-	16.69	-
52.8	17.52	2.13	21.62	23.47	-	24.48	-
53.3	19.22	2.01	17.23	21.28	-	24.7	-
54.2	17.2	1.7	17.82	13.33	-	19.56	-
55.7	16.57	2.04	17.32	17.88	-	18.34	-
55.5	16.8	2.02	16.16	17.8	-	17.5	-
54.7	12	1.25	14.15	15.3	-	14.79	-

I PV 240 V	VDC 240 V
6.5	253.8
6.96	257.3
7.71	211.5
6.05	240
9.01	284.8
7.97	293.8
2.96	275.8
1.92	272.3

Hari / Tanggal: Rabu 28 Maret 2018

No	Jam	Inverter 240 V					
		V DC	I DC	I AC			
				KANTOR	BARAT	TENGAH	TIMUR
10	10.00	282.8	-	-	-	-	-
11	11.00	286.2	-	-	-	-	-
12	12.00	293.7	-	-	-	-	-
13	13.00	285.4	-	-	-	-	-
14	14.00	281.1	-	-	-	-	-
15	15.00	284.4	-	-	-	-	-
16	16.00	268	-	-	-	-	-

Inverter 48 V Barat				Inverter 48 V Tengah			
V DC	I DC	I AC		V DC	I DC	I AC	
		Barat	Pompa			Tengah	Kantor
55.3	-	2.21	1.34	-	-	1.03	0.95
54.7	-	1.81	1.32	-	-	1.22	1.05
55.2	12.93	2.84	1.37	-	13.42	1.2	2.74
55	13.86	3.01	1.35	-	11.75	1.21	1.48
57	13.54	2.06	1.38	-	11.39	1.7	1.58
57.4	11.34	2.66	1.35	-	13.34	1.12	1.29
55.6	11.72	2.05	1.17	-	10.62	1.13	1.24

Inverter 48 V Timur			I PV 48 V				I PV 240 V	
V DC	I DC	I AC	1	2	3	4	BARAT	TIMUR
-	9.54	3.81	18.13	20.38	15.6	12.55	4.81	-
-	5.78	2.98	22.11	24.03	18.78	14.73	6.47	-
-	5.7	2.93	18.61	20.18	16.67	13.42	10.13	-
-	6.78	2.98	16.52	17.67	14.54	14.15	6.42	-
-	6.85	3	15.57	10.86	12.79	11.7	6.67	-
-	6.25	2.79	15.01	15.11	12.5	12.17	6.2	-
-	6.78	2.98	14.83	13.93	10.51	12.29	-	-

Hari / Tanggal: Selasa 10 April 2018

No	Jam	Inverter 240 V					
		V DC	I DC	I AC			
				KANTOR	BARAT	TENGAH	TIMUR
9	09.00	248.1	6.28	0.61	2.3	1.32	3.98
10	10.00	241.8	7.92	2.37	2.27	1.56	3.88
11	11.00	249.9	8.1	2.39	2.29	1.64	4.27
12	12.00	244.1	7.14	1.38	2.29	1.66	4.09
13	13.00	248.5	6.96	1.39	2.29	1.6	4.09
14	14.00	248	4.25	1.4	1.97	1.46	4.05
15	15.00	251.5	2.64	2.67	2.35	1.53	3.6

Inverter 48 V Barat			Inverter 48 V Tengah			Inverter 48 V Timur		
V DC	I DC	I AC	V DC	I DC	I AC	V DC	I DC	I AC
55.2	6.12	0.7	-	-	-	-	-	-
55.7	6.87	0.62	-	-	-	-	-	-
56.5	6.8	0.65	-	-	-	-	-	-
57.1	6.91	0.64	51.9	2.18	0.53	-	-	-
57	6.5	0.65	-	-	-	-	-	-
56.7	8.85	0.7	56.2	13.48	0.58	-	-	-
57.3	20.2	0.68	57.3	6.88	0.62	-	-	-

I PV 48 V				I PV 240 V	
1	2	3	4	BARAT	TIMUR
19.2	16.3	-	-	7.47	-
18.38	14.6	-	-	8.59	-
17.17	14.05	-	-	11.52	-
17.51	14.36	-	-	11.97	-
21.33	18.1	-	-	11.71	-
20.97	16.5	-	-	9.7	-
16.14	13.61	-	-	6.18	-

Hari / Tanggal: Jum'at 04 Mei 2018

No	Jam	Inverter 240 V					
		V DC	I DC	I AC			
				KANTOR	BARAT	TENGAH	TIMUR
9	09.00	254.5	2.76	0.84	1.5	0.89	1.91
10	10.00	257.7	2.4	0.85	1.64	0.98	2.08
11	11.00	263.9	2.79	0.84	1.71	1.11	2.26
12	12.00	-	-	-	-	-	-
13	13.00	274.9	2.37	1.11	1.92	1.77	2.87
14	14.00	274.4	2.17	1.1	1.9	1.76	3.14
15	15.00	262	2.42	1.26	1.93	1.79	3.05
16	16.00	262.6	2.6	1.27	2.14	1.91	3.05

Inverter 48 V Barat			Inverter 48 V Tengah			Inverter 48 V Timur		
V DC	I DC	I AC	V DC	I DC	I AC	V DC	I DC	I AC
53.4	19.94	0.89	53.4	7.73	0.85	53.4	1.72	0.92
54	19.25	0.85	54	9.25	0.82	54	1.74	0.85
54.8	22.15	0.87	54.8	9.5	0.83	54.8	1.73	0.9
-	-	-	-	-	-	-	-	-
56.2	19.78	0.8	56.2	8.18	0.74	56.2	1.56	0.73
57.1	19.01	0.81	57.1	11.01	0.75	57.1	1.61	0.75
56.5	19.3	0.79	56.5	8.62	0.71	56.5	1.58	0.68
51.9	21.82	0.8	51.9	8.62	0.74	51.9	1.53	0.72

I PV 48 V				I PV 240 V	
1	2	3	4	BARAT	TIMUR
5.11	24.13	23.65	27.98	11.48	-
16.83	22.34	20.51	35.9	13.32	-
23.07	24.56	19.84	39.11	15.2	-
-	-	-	-	-	-
19.32	19.92	16.92	29.43	9.34	-
18.36	18.8	15.58	26.71	8.19	-
16.78	15.96	17.72	23.5	5.79	-
10.3	9.37	6.49	28.46	4.87	-

<b>Bulan</b>	<b>Radiasi Matahari (kWh/m<sup>2</sup>/d)</b>	<b>Kecepatan Angin (m/s)</b>
Januari	4.37	5.14
Febuari	4.72	4.63
Maret	4.8	4.63
April	4.65	4.63
Mei	4.52	4.12
Juni	4.56	4.63
Juli	4.93	4.63
Agustus	5.4	5.14
September	5.61	5.14
Oktober	5.13	5.14
November	4.98	5.14
Desember	4.52	5.14